Sustainable Hotel Practices and its Influence on Consumer Buying Behavior

-A Comparison between Vienna and Hong Kong -

Bachelor Thesis

- Susanne Klepsch & Julia Schneider -

As the awareness of the need for protecting our natural reserves for future generations rises, sustainability and environmentally friendly practices are starting to gain more and more importance (Honey, 2008). According to Sloan et al. (2009) shareholders, employees and customers have increasing expectations of the tourism industry in terms of responsible behavior concerning economic, social and environmental factors. Especially in the tourism and hospitality industry there are lots of possibilities to enhance sustainable business strategies and pollution free workflows. Although there are already many hotels adapting sustainable operating procedures, they still represent a minority because of start-up efforts and costs. At this point, not only is the willingness of tourism enterprises for changes towards sustainability essential, but the government also plays a pivotal role in setting measurements to preserve the ecosystem (World Travel & Tourism Council, 1995).

Poorly managed tourism has an immense impact on the environment around the world and although many businesses ignore those impacts for the present, they will eventually be forced to come to terms with the environmental consequences of their unsustainable actions (Middleton & Hawkins, 1998). This opinion is shared by Ball et al. (2007, p.107), who state that "environmental impacts are often exacerbated as tourism expands, and these impacts in turn are likely to adversely affect the tourism product and demand".

All the above is setting the scene for this bachelor thesis, which is focusing on the steadily growing importance of sustainable operating procedures in hotels and how far at this point in time they are already integrated in a hotel's day-to-day operation. In a second step, it will be identified to what extent customers are willing to pay a premium to support sustainability in hotels. Consequently, two separate research studies are conducted: the first concerning sustainable hotel practices and the second concerning consumer behavior. These two studies are described in more detail below.

Study 1- Sustainable Hotel Practices

A growing number of hotels around the world have already successfully implemented sustainability into their business strategies. However, to identify whether hotels are exhausting

all possibilities of sustainable measures or if there are still untouched opportunities, it is essential to investigate the differences of relevant implementations in various hotels in different countries. Therefore, this thesis is concentrating on hotels in a European city, Vienna, and comparing them to hotels in an Asian city, Hong Kong. Those two cities have been chosen, because they seem to be very diverse regarding their attitude towards sustainability. Furthermore, it is a given fact that urban areas are less considered in the sustainable tourism debate than coastal or countryside regions (Swarbrooke, 1999). Austria started the discussion on sustainability in the late 1980s and was recently recognised as one of the world's best destinations for sustainable tourism in the World Economic Forum's Travel & Tourism Competitiveness Report (Habisch et al., 2005; Austria.info, 2012). Conversely only recently started the move toward sustainability, when the Hong Kong Tourist Association released an environmental sustainable development strategy for Hong Kong's travel and tourism industry in 1997. However, this strategy did not bring the expected radical changes, but merely raised awareness of the need for sustainable behavior (Ball et al., 2007).

With the goal of finding out how advanced sustainability in both cities is today, 10 interviews with experts from the industry are conducted, six of which take place in Hong Kong and four in Vienna. Then, the two cities are compared by an in-depth evaluation of these interviews.

Within these interviews, a deeper insight into ways of using sustainability as a USP (unique selling point) is investigated, which leads to the second study of this bachelor thesis.

Study 2 - Sustainability and Consumer Behavior

The second study investigated the consumer's attitude towards sustainability and their willingness to pay for sustainable services. Therefore, the size of the customer segment, which is concerned with sustainability, was of interest. According to Solomon et al. (2010) this customer segment is practicing LOHAS – an acronym for "lifestyles of health and sustainability". This label describes a growing number of people, who are concerned about the environment and support environmental practices by buying products that are produced in a sustainable way. Furthermore, LOHAS are willing to spend a premium for sustainable business practices (Sloan et al., 2009).

Previously the overall marketing industry was concentrated solely on consumerism, meaning that they focused on finding the best ways of serving consumer wants. Today, environmental and sustainability factors are often considered as well when creating marketing campaigns. Environmentalism represents an organised movement of the society and the government to preserve and improve the peoples living environment without restricting marketing and consumption (Kotler et al., 2008). According to the WTO (2004) environmental sustainability is

increasingly important in contributing to the quality of customer experiences and overall tourist satisfaction.

The study tried to locate all factors of sustainable implications within hotel management operations that have the power to attract customers. For a start it was therefore necessary to identify the degree of awareness of the need for environmentally friendly services, products and practices from the perspectives of both, tourism suppliers and its customers. As there is a shift towards a demand driven marketplace, the customer determines what a hotel has to offer. According to Sloan et al. (2009, p.102) "Consumers, not governments, are the driving force behind the trend of companies to develop environmental stewardship". Based on the study, the main aim is to find out how much customers, coming from different parts of the world, are willing to pay a premium included in their room rate for supporting the positive development of sustainable hotel practices. Furthermore, this study focuses on the comparison of this customer willingness between the eastern and the western parts of the world.

To sum up, our two broad research questions for this thesis are:

1) How are hotels in Vienna and Hong Kong adapting sustainability in their operations and business strategy?

2) To what extent are customers willing to pay a premium for sustainability in hotels?

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Declaration of Authorship

We declare that this dissertation is our own unaided work. We have not included any material or data from other authors or sources, which are not acknowledged and identified in the prescribed manner. We have read the section in the exam regulations on plagiarism and understand that such offences may lead the Examinations Board to withhold or withdraw the award of Bachelor of Business Administration.

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List of Abbreviations

AAA	AMERICAN AUTOMOBILE ASSOCIATION
CSR	CORPORATE SOCIAL RESPONSIBILITY
EMS	ENVIRONMENTAL MANAGEMENT SYSTEMS
GHI	GREEN HOTEL INITIATIVE
HKSAR	HONG KONG SPECIAL ADMINISTRATIVE REGION
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
IHEI	INTERNATIONAL HOTELS ENVIRONMENT INITIATIVE
ISO	INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
LED	LIGHT-EMITTING DIODE
LOHAS	LIFESTYLES OF HEALTH AND SUSTAINABILITY
NEP	NEW ECOLOGICAL PARADIGM
NGO	NON-GOVERNMENTAL ORGANIZATION
OECD	ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
TBL	TRIPLE BOTTOM LINE
UNWTO/WTO	WORLD TOURISM ORGANIZATION
WCED	WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

1 Introduction

As the awareness of the need for protecting our natural reserves for future generations rises, sustainability and environmentally friendly practices are starting to gain more and more importance (Honey, 2008). According to Sloan et al. (2009) shareholders, employees and customers have increasing expectations of the tourism industry in terms of responsible behavior concerning economic, social and environmental factors. Especially in the tourism and hospitality industry there are lots of possibilities to enhance sustainable business strategies and pollution free workflows. Although there are already many hotels adapting sustainable operating procedures, they still represent a minority because of start-up efforts and costs. At this point, not only is the willingness of tourism enterprises for changes towards sustainability essential, but the government also plays a pivotal role in setting measurements to preserve the ecosystem (World Travel & Tourism Council, 1995).

Poorly managed tourism has an immense impact on the environment around the world and although many businesses ignore those impacts for the present, they will eventually be forced to come to terms with the environmental consequences of their unsustainable actions (Middleton & Hawkins, 1998). This opinion is shared by Ball et al. (2007, p.107), who state that "environmental impacts are often exacerbated as tourism expands, and these impacts in turn are likely to adversely affect the tourism product and demand".

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Study 1- Sustainable Hotel Practices

A growing number of hotels around the world have already successfully implemented sustainability into their business strategies. However, to identify whether hotels are exhausting all possibilities of sustainable measures or if there are still untouched opportunities, it is essential to investigate the differences of relevant implementations in

various hotels in different countries. Therefore, this thesis is concentrating on hotels in a European city, Vienna, and comparing them to hotels in an Asian city, Hong Kong. Those two cities have been chosen, because they seem to be very diverse regarding their attitude towards sustainability. Furthermore, it is a given fact that urban areas are less considered in the sustainable tourism debate than coastal or countryside regions (Swarbrooke, 1999). Austria started the discussion on sustainability in the late 1980s and was recently recognised as one of the world's best destinations for sustainable tourism in the World Economic Forum's Travel & Tourism Competitiveness Report (Habisch et al., 2005; Austria.info, 2012). Conversely only recently started the move toward sustainability, when the Hong Kong Tourist Association released an environmental sustainable development strategy for Hong Kong's travel and tourism industry in 1997. However, this strategy did not bring the expected radical changes, but merely raised awareness of the need for sustainable behavior (Ball et al., 2007).

With the goal of finding out how advanced sustainability in both cities is today, 10 interviews with experts from the industry are conducted, six of which take place in Hong Kong and four in Vienna. Then, the two cities are compared by an in-depth evaluation of these interviews.

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Previously the overall marketing industry was concentrated solely on consumerism, meaning that they focused on finding the best ways of serving consumer wants. Today, environmental and sustainability factors are often considered as well when creating

marketing campaigns. Environmentalism represents an organised movement of the society and the government to preserve and improve the peoples living environment without restricting marketing and consumption (Kotler et al., 2008). According to the WTO (2004) environmental sustainability is increasingly important in contributing to the quality of customer experiences and overall tourist satisfaction.

The study tried to locate all factors of sustainable implications within hotel management operations that have the power to attract customers. For a start it was therefore necessary to identify the degree of awareness of the need for environmentally friendly services, products and practices from the perspectives of both, tourism suppliers and its customers. As there is a shift towards a demand driven marketplace, the customer determines what a hotel has to offer. According to Sloan et al. (2009, p.102) "Consumers, not governments, are the driving force behind the trend of companies to develop environmental stewardship". Based on the study, the main aim is to find out how much customers, coming from different parts of the world, are willing to pay a premium included in their room rate for supporting the positive development of sustainable hotel practices. Furthermore, this study focuses on the comparison of this customer willingness between the eastern and the western parts of the world.

To sum up, our two broad research questions for this thesis are:

1) How are hotels in Vienna and Hong Kong adapting sustainability in their operations and business strategy?

2) To what extent are customers willing to pay a premium for sustainability in hotels?

2 Sustainability

2.1 Definition

The main issues that sustainable development is commonly dealing with are climate change, pollution, deforestation, loss of biodiversity, resource availability and clean water (Peet, 2008). In order to cope with those issues and to develop counteracting strategies against them, various definitions describing sustainability and sustainable development have been developed. According to the Oxford Dictionaries, sustainable refers to „conserving an ecological balance by avoiding depletion of natural resources“ (Oxford Dictionaries, 2012). In other dictionaries such as the Longman Active Study Dictionary, sustainable is described as being “able to continue, especially without destroying the environment” (Longman Active Study Dictionary, 2004). Nevertheless, the most acknowledged definition was first mentioned in 1987 in the publication of “Our Common Future”, better known as the Brundtland report, from the United Nations World Commission on Environment and Development (WCED), which states that "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (United Nations World Commission on Environment and Development, 1987).

Specifically in a business environment, sustainability “generally refers to the ability of a company to do business in a fashion that minimizes pollution and reflects careful management of natural resources.” (Esty & Simmons, 2011, p.5).

The number of different definitions and categorizations available for sustainability in combination with the lack of globally consistent eco-labels, make it difficult to determine whether products, companies or hotel operations are actually sustainable or not, which leads to false assumptions and flawed advertising of sustainability (see chapters 2.5 and 3.1) (Lansing & De Vries, 2007; Gregorio, 2005).

2.2 History

In the last century, humankind has greatly damaged a majority of its natural habitat and this negative development is yet continuing. According to Munier (2005, p.1) “…humankind has very effectively managed to squander the earth’s resources, clear-cutting a large amount of

existing forests, contaminating the atmosphere, polluting rivers, and even altering our climate."

Munier (2005) is emphasizing this by stating that economic forces are predominantly responsible for the negative environmental impacts we are facing today, as they have created a society which is driven by mass consumption of non-renewable resources producing millions of tons of waste every year. However it cannot be forgotten that the economy is using natural resources to produce; therefore our society is entirely dependent on those scarce resources and has to protect them in order to uphold the economy. According to Peet (2008, p.4), "the richest 20% of the world population is consuming roughly 80% of the world's resources." With the continuing economic growth of developing countries, also consumption demands for scarce resources will increase, which means that the 20% of resources available at the moment for the 80% remaining population will not be sufficient in the future if environmental impacts are kept at their current level.

As of today, there is no end of the negative environmental impacts in sight. As one of many examples, the number of cars in China and India is expected to grow from less than 20 million in 2000 to 1.1 billion by 2050 (Esty & Winston, 2009), which is one of countless reasons why the environmental degradation is not going to decrease significantly anytime soon. Munier (2005, p.2) stresses this statement by saying, "humankind continues to use its resources as if these were inexhaustible and free."

Wilhelm (2009) argues that for too many years, the only ones concerned about the environment were climate socialists and environmentalists and just recently more people have realized that humankind is facing an unprecedented challenge, as climate change is more and more visibly threatening our lives on a planet-wide scale.

It is widely disputed where the concept of sustainable development had its start, as concern about the society's impact on the environment was already an issue in the beginning of the 20th century. However, the birth of the sustainable development movement is widely associated with the United Nations Conference on the Human Environment in Stockholm in 1972, which was the first major UN conference concerned about environmental issues on a global scale (Dauvergne, 2005). After some dramatic events such as the Bhopal accident in India in 1984 and the nuclear accident in Chernobyl in 1986, governments worldwide were

induced to implement stricter regulations and laws on companies' behavior towards the environment (Blackburn, 2007).

Thereupon the Brundtland Report was published in 1987 with the main goal of improving human well-being and minimizing poverty without jeopardizing the existence of natural resources (Peet, 2008). Soon after, another milestone in the history of sustainable development was reached with the Earth Summit in Rio de Janeiro in 1992, where NGOs together with business leaders from around the world tried to address the environmental problems caused by humankind's destructive behavior by also releasing the renowned document Agenda 21 (see chapter 4.3.2). Although society has thus started to recognize the severe global environmental problems and the urgent need to take action, most of the goals and expectations set at the Earth Summit have not been met in the subsequent years (Munier, 2005).

However, it is a known fact that sustainability is gaining importance and the public and political awareness is believed to have increased tremendously in recent years. Governments around the world are increasingly paying attention to scarce natural resources and are implementing regulations to protect them. Companies, from small to medium-sized enterprises to large, global companies, are calculating their ecological footprints and are implementing strategies to mitigate or offset their individual impact on the environment. In the past years, many sustainability conferences have been held in various countries and even in banks and financing firms the importance of sustainability is growing, as they require companies to provide information about their environmental performance before a loan is granted. Various types of certification programs and eco-labels have been implemented on a global basis and are issued to companies with outstanding environmental performance (see chapter 4.1).

However, the core challenge today is still to connect the development and the aggressive growth of businesses with the protection of the planet and the people living on it, even though these goals are perceived as moving in separate directions and being difficult to merge. This is because companies often believe that decreasing pollution by adhering to better environmental standards may be opposing their economic interests and decreasing their profits (Esty & Winston, 2009). Consequently, in 1997, sustainability expert Briton John Elkington introduced the triple bottom line (TBL), which refers to the achievement of not

only “bottom-line” performance (profitability), but also social and environmental performance in order to reach total sustainability (Blackburn, 2007). Before, companies were mainly focusing on cutting costs, transferring production to developing countries and thereby neglecting the social and environmental impact those practices had, such as child work, exploitation of labor, carbon food print through increased transportation, etc. Consequently, companies slowly commenced to measure their performance by splitting the single bottom line “profit” into: profit, people and planet, thus representing the goal of total sustainability (Jonker & de Witte, 2006). Accordingly, many companies reassessed their global impacts and with the growth of the Fair Trade movement, green marketing orientation began simultaneously and exploded radically. According to Blackburn (2007), 60 million entries on sustainable development where found on the Internet in 2006, which was eight times more than in 2003. Today, sustainability is taking a large part in societies’ mind, business strategies, company’s regulations and the scope of various NGOs. This has many implications in regards to international tourism, which are explained in the following subchapter.

2.3 Importance in the Tourism Industry

As the number of international tourist arrivals is estimated to rise from 940 million in 2010 to 1.8 billion by 2030, the tourism industry is highly recognised as being one of the most prominent engines of economic development and one of the most important sectors of economic growth worldwide (UNWTO, 2011). Additionally, in 2009 one out of twelve employees has been working in the tourism industry and tourism accounted for more than 9% of global GDP (Cukier, 2010). That means that tourism is turning over more money each year than the oil, automotive or weapons industries (Bajracharya, 1998).

Therefore, the minimization of tourism’s negative impact on the environment (e.g. depletion of natural resources like energy and water overuse, greenhouse gases, waste production, destruction of cultural heritage, social issues etc.) is gaining importance as resources required by the tourism industry (e.g. natural resources: beaches, mountains, weather and any sort of energy, clean waters, etc.) are getting scare because of society’s irresponsible behavior impacting the environment. An extinction of those resources would hinder dramatically overall economic growth (UNWTO, 2011; Lansing & De Vries, 2007).

Accordingly, the importance of sustainability is stressed in the Brundtland report, which reads as follows:

"We see instead the possibility for a new era of economic growth, one that must be based on policies that sustain and expand the environmental resource base. And we believe such growth to be absolutely essential to relieve the great poverty that is deepening in much of the developing world" (United Nations World Commission on Environment and Development, 1987, p.11).

Esty & Winston (2009) are even going further in seeing two reasons why sustainability is gaining importance for tourism business operations. First, tourism business operations are threatened by the limits of natural resources and second, various stakeholders are already requiring certain environmental standards to be met by companies. In many industries environmental standards are not just a competitive advantage any longer, but standards have to be adopted and have become a must in order to survive in a competitive market. Companies increasingly understand that "working to protect the planet also protects their own companies" (Esty & Winston, 2009, S. p.4). As many operational blunders in recent years have shown, environmental mistakes can quickly ruin a company's reputation and damage a long-build up market. For example, when Greenpeace released an ignominious Youtube video on Nestle's policy of buying palm oil and supporting deforestation, it created a social media debacle, which has negatively influenced the company's image (Chitty et al., 2011). Also, the oil spill in the Gulf of Mexico in 2010 resulted not only in an environmental disaster but also in a PR nightmare for the energy company BP (Jarboe, 2011). Warren Buffett once said: "It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you'll do things differently." (Buffett & Lowe, 2007, S. p.27). This once again emphasizes the fact that sustainability is not necessarily just protection of the environment, it is additionally fulfilling what today's societies are asking for. This statement is strengthened by a study conducted by Frooman (1997), which revealed that negative environmental behavior by companies is indeed negatively correlated to shareholders wealth. Hence, companies have to understand that being unsustainable may harm their businesses in countless ways. Furthermore, a lot of opportunities are generated by environmental initiatives, which, if well integrated into a company's strategy, may cut costs tremendously and increase a company's profit. Willard (2005) is sharing this opinion by saying that not just costumers, but also shareholders, NGOs, investors and governments are

increasingly requiring information about corporate social and environmental performance. Especially due to growing transparency, companies are striving to improve their environmental performance to maintain positive public relations (Willard, 2005).

Esty & Winston (2009) describe in their book "Green to Gold" how companies can use environmental strategies to create value and gain a competitive advantage. They state that the "gold" that companies earn through being green consists of "higher revenues, lower operational costs, and even lower lending rates from banks that see reduced risk in companies with carefully constructed environmental management systems" (Esty & Winston, 2009, p.12). Furthermore, a positive reputation, costumer loyalty, and employee's commitment are one of many intangible benefits a company can seize by integrating environmental strategies into their operations (Esty & Winston, 2009). Companies around the world have realized that, in order to survive in a competitive and "green"-requiring market, they have no other alternative than following an environmentally friendly development and pursuing successful ways to respond to already generated negative environmental impacts. Esty & Winston (2009, p.17) state: "For those who are prepared, this new market offers considerable opportunity. But the same growth in consumption threatens to destroy natural resources and inflict planet-wide pollution on an unprecedented scale." Therefore counter strategies have to be developed to cope with these issues.

The main barriers hindering companies to implement "green" strategies are the perceived cost barriers related to eco-friendly constructing and the lack of understanding that operating in a sustainable way may cut costs immediately and immensely. Specifically, as the importance of sustainability is growing and technologies are improving, the costs for making a company environmentally sustainable are gradually decreasing. Especially in the building industry, progresses of technology have proved that environmentally friendly constructions have immense cost advantages for companies. According to Esty & Simmons (2011) the extra costs for a green building are only 2 percent more compared to a traditional building. However, green buildings have high savings in resource consumption and therefore become very efficient and the return on investment on a green building is about four to six times the upfront cost (Esty & Simmons, 2011).

Despite those mentioned benefits of being sustainable, companies are also increasingly forced into the green track by regulations enacted by the government, which require companies to mitigate their greenhouse gas emissions and consider the needs of the environment and local communities while doing business (Willard, 2005).

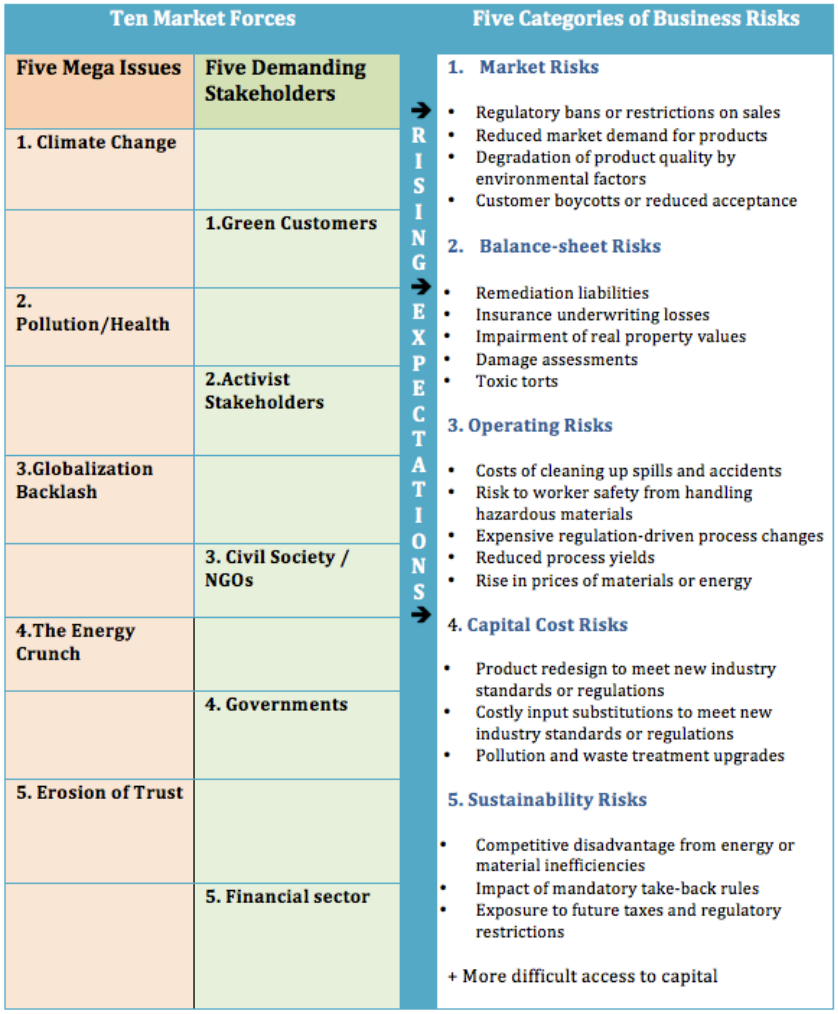


Figure 1 - Market forces leading to expectations and risks (Willard, 2005)

According to Willard (2005) companies are nowadays facing certain risks, such as new standards and regulations, restrictions and competitive disadvantages, resulting from rising expectations (see Figure 1). Rising expectations in terms of sustainable development are according to Willard (2005) created through market forces, such as environmental issues and the growing green consumer segment. These market forces create sustainability risks, which can take the form of competitive disadvantage and can even result in business failure if businesses do not respond to those sustainability market forces.

Some businesses take advantage of their sustainability enhancements by using them as selling points. However, it is uncertain how effective this is. This will be investigated further in the next subchapter.

3 Sustainability and Consumer Behavior

3.1 Sustainability as a USP

The question if sustainability can act as a unique selling point is debatable, especially due to the fact that sustainability is increasingly seen as a standard rather than a unique characteristic. Furthermore, the fact that sustainability itself has the power to attract customers is especially in the tourism industry questionable, as in many customers' minds sustainability refers to a decrease in services provided. However, as the public is showing an increased concern about the environment, sustainability is turning into a strategic tool that can boost a hotel's competitive advantage (Lee et al., 2010), often referred to as "Eco-Advantage" (Esty & Winston, 2009). This Eco-Advantage is not only beneficial in terms of attracting customers, but also in terms of stakeholders investment decisions as investors are increasingly requiring companies to be sustainable.

It is important to realize that the marketing environment has changed simultaneously with the popularity of sustainable products. In order to influence customers' purchasing decisions nowadays, marketing efforts have to address the increasingly informed, environmentally concerned customer by shifting away from the traditional fours Ps of marketing (product, price, place and promotion) to the revised four Ps of sustainable development namely people, planet, profit and progress (see figure 2; Sloan et al., 2009). This model focuses first of all on creating wealth for the company by operating, producing and consuming in a sustainable way, secondly on the conservation of natural resources and thirdly on the well-being of the society by enabling them to benefit from a company's success. To accomplish all those corner stones, progress as a driver is indispensible, as without progress and continuous improvement, a company is not able to fully integrate sustainability into their day-to-day business.

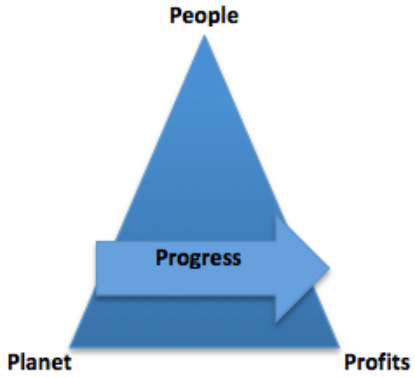


Figure 2 - The new four P's of Sustainable Marketing (Sloan, Legrand & Chen, 2009, p.90)

However, the development of sustainability as a marketing tool is not a single strategy that is applicable to all companies, in every place in the world and in all circumstances (Esty &

Winston, 2009). The question, if sustainability can serve as a unique selling point, broadly depends on the industry and its market.

Nevertheless, it can be said that more and more companies all over the world try to use sustainability to gain a competitive advantage by selling and promoting sustainable features of their products. This promotion, often resulting in so-called Green Marketing, is described in the next subchapter.

3.2 Promoting Sustainability: Green Marketing

Marketing in general is about managing profitable customer relationships by communicating information, responding to customer needs and therewith creating value for customers, which are in return stimulating consumption and generating customer satisfaction (Kotler & Armstrong, 2010).

Nowadays, a shift of consumer awareness and consumer priorities in purchase decision making can be identified, as consumers are gradually more on the lookout for products which are beneficial for one's health, for the community and for the planet (Solomon et al., 2009).

Companies worldwide have noticed this conscientious consumer segment and have adapted their marketing strategies in order to obsessively promote each and every green aspect of their products. This so-called Green Marketing - advertising and promoting with a focus on how eco-friendly products are - is becoming increasingly important in every industry worldwide (Solomon et al., 2009). Also in the tourism industry, terms such as eco-tourism or sustainable tourism are increasingly being used and are helping in attracting environmentally conscious tourists (Lansing & De Vries, 2007).

In principle, Green Marketing is not about stimulating customers to consume less, but to consume more responsibly. Marketing possesses the power of changing modes of consumption, spending patterns and quality standards and therefore plays a significant role in developing sustainability by encouraging responsible consumption (Sloan et al., 2009).

Wilhelm (2009) suggests that in an epoch, where market forces are constantly changing, competition is increasing and market differentiation is becoming harder, companies should

seize the opportunity to attract customers, create positive publicity and increase customer loyalty by implementing green strategies and providing eco-friendly products and services.

Although, green marketing may influence consumer buying decisions in a positive way, many large companies do not promote their sustainable efforts to the public. This is due to various reasons. Sometimes, they do not perceive sustainability as a "selling point", or they might not want to automatically attach a non-sustainable image to other products offered by them, which are not explicitly promoted as "green". Some companies also deliberately decide not to promote sustainability as they are trying to avoid the attention of NGOs and do not want to attract any unwanted disputes (Lange & Meier, 2009). Also, many companies fear being blamed for "greenwashing", which refers to the act of using environmentally friendly advertising to cover up environmental malpractice or using it in order to attract customers although no sustainable efforts are actually made (Sloan et al., 2009).

Nevertheless, companies increasingly implement green marketing as they are trying to address the needs of an evolving consumer base, which is concerned about environmental friendliness and sustainability. In the next subchapter these specific target groups and their purchasing behaviors are discussed.

3.3 Target Group and Their Behavioral Intention

The main target group of sustainable products and services are "green" customers, who are not only concerned about the environment, but also about social well-being on a global level (Willard, 2005). The driving issues leading this relatively new social group are climate change, pollution, depletion of natural resources, waste, green house gases, and corporate responsibility. (Willard, 2005) The degree of being green varies among consumers, from merely caring about protecting the environment to actually buying "green" products (see Figure 3).

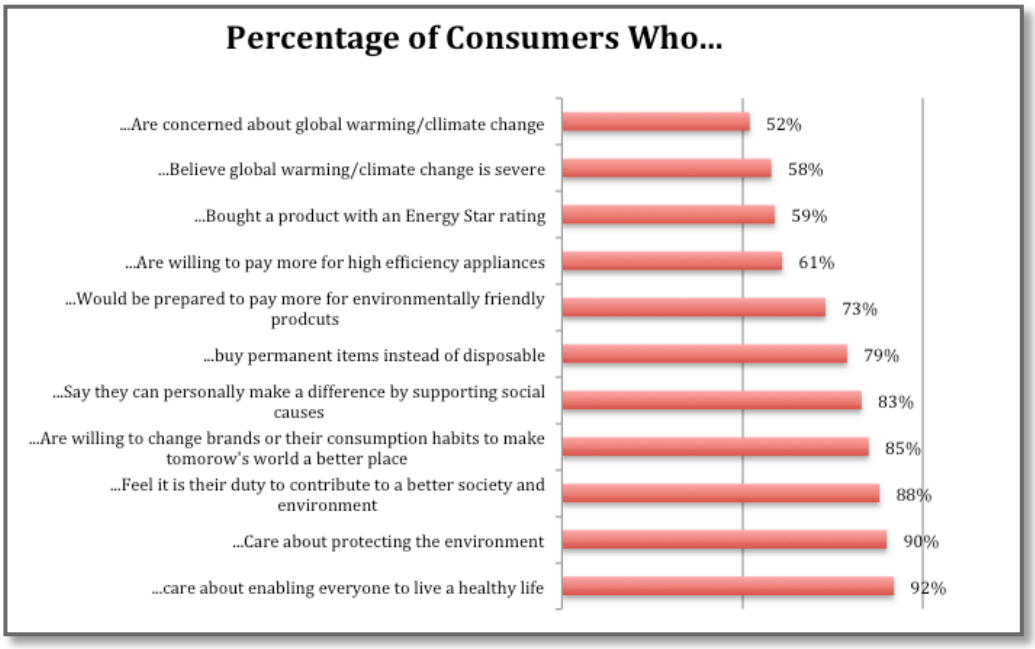


Figure 3 - Customer's growing concern about sustainability (Wilhelm, 2009)

These large percentages in every category emphasize again that customers have begun to pay more attention to what they buy and where the products come from. Research is continually showing that consumers have a strong preference for more sustainable products and services. Consumer purchasing decisions strongly reflect these new values. Instead of products just being compared regarding price, quality, and performance, social responsibility and sustainability are now not only taken into consideration, but are often even eclipsing the other attributes in the decision making process (Wilhelm, 2009).

The growing trend towards buying organic and local food with minimal carbon footprint is an observable indication of the public's increasing concern about the environment. This trend is further shown in the success of hybrid cars and the growing implementation of other environmentally friendly consumer goods. In general, the demand for eco-friendly products is gradually increasing with the growing LOHAS market - an acronym standing for Lifestyles of Health and Sustainability, which is covering a $290 billion market segment in the United States (Natural Marketing Institute, 2010). According to Solomon et al. (2010), this label describes a growing number of people, who are climate-conscious, have high ethical values, are concerned about the environment, support environmental practices by buying environmentally friendly products and services and care about corporate responsibility (Wilhelm, 2009; Solomon et al., 2010; Ottman, 2011). This consumer group also values health, social justice, personal development and is commonly willing to spend a premium for sustainable products in order to promote social and environmental harmony (Sloan et al., 2009). Businesses should not overlook this increasingly influential demographic (Wilhelm, 2009), especially as 19% of the US population already considers themselves to be LOHAS (Sloan et al., 2009). Furthermore, this growing market is already generating $290 billion annually in the US, 14% of which represents ecotourism, a sub-market with an estimated growth rate of 20% annually (see figure 4; Natural Marketing Institute, 2010).

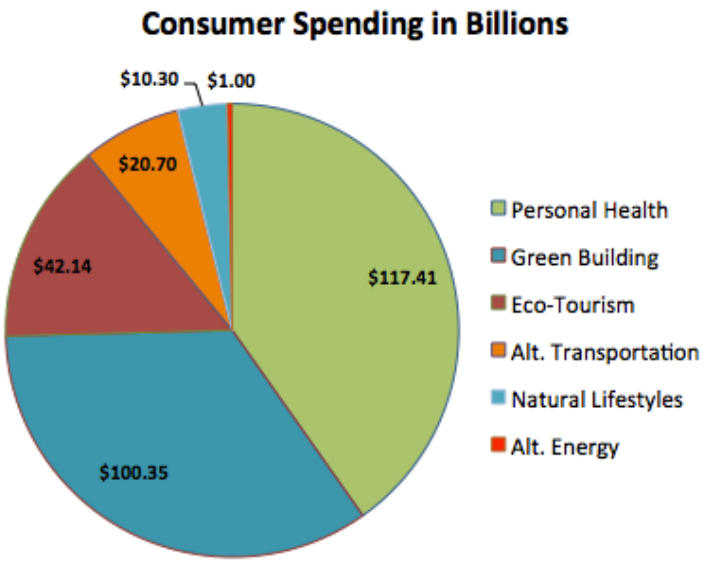


Figure 4 - 2008 Consumer spending in billions (Natural Marketing Institute, 2010)

As figure 4 shows, LOHAS generate a significant and growing market for sustainable products in various categories, including cars, organic food, green hotels and ecotourism in general (Solomon et al., 2009). Further, 9 out of 10 Americans see themselves as "conscious

consumers" and a large number of college students rated social responsibility more important than celebrity endorsement when buying a product (Wilhelm, 2009).

According to the GlobeScan's "Environmental Monitor 2002" survey, 22% of people in G7 nations are considered "green consumers", and are willing to pay a premium for sustainable products. This is supported by Laroche et al. (2010), who state that a growing number of consumers are explicitly seeking eco-friendly products even if they are more expensive than alternatives. Likewise, another study by Fairweather et al. (2005) revealed that 61% of respondents would pay a premium for a hotel with an environmental label.

Furthermore, studies revealed that an increasing number of customers are punishing or rewarding companies depending on their social and environmental performance (Willard, 2005). In this case, rewarding means buying products or spreading positive word of mouth, and punishing means refusing to buy products or spreading negative word of mouth (Willard, 2005).

This is supported by GlobeScan's "Environmental Monitor 2002" survey that found that 43% of consumers are already actively challenging companies to take on greater environmental responsibility (Willard, 2005).

The popularity of sustainable products is supported by the wide variety of products available on the market. This leaves the choice of buying sustainable products to the consumer. Furthermore, the increasing use of technology during the consumer buying process enables consumers to make more informed choices and determine whether or not a company they are buying from is sustainable. Thus, as demand for these products continually increases, companies are forced to adapt and put more effort into developing relevant sustainable products (Solomon et al., 2009).

Although it is a fact that sustainability is becoming an increasingly important factor in customer buying decisions, it is still debatable how customers perceive the excessive advertising of sustainability when purchasing products or services. Especially in the area of tourism, sustainable development is often seen as a sheer marketing ploy, as the tourism sector is typically associated with negative environmental and cultural impacts and therefore

faces skepticism among customers and other stakeholders (Lansing & De Vries, 2007). A study conducted by Robinot & Giannelloni (2010) revealed that a hotel's environmentally friendly management was seen as a „basic" attribute that should be included in the tourism product rather than a marketable amenity.

All in all, consumers want to feel satisfied when making purchases and in times of growing concern about the environment and the earth's future, green aspects of a product surely support this satisfaction (Moreo, 2008).

4 Sustainable Hotel Practices

4.1 Technical Fittings and Sustainable Practices in Hotels

The traditional pure ecological movement gets more and more combined with the modern and hip lifestyle of the next generation (Conrady, 2011).

Cool architecture and creative technology are used to save energy, without harming the attractiveness of the interior and service design. This trend is mainly driven by the change of customer's demands. Today's customers are hybrid and they want sustainable and green products that include a modern appeal.

A three steps model can explain the evolution of the green hospitality:

1.) „Eco-friendly settings: natural materials (wood etc.), reduction of greenhouse gas emission, energy saving appliances etc.
2.) Holistic sustainable concept: renewable energy concept, regional value chain, organic products, eco-programs (knowledge transfer) etc.
3.) Green Lifestyle: merge of „eco" and „hipness""(Conrady, 2011)

This chapter will focus on the holistic sustainable concept, by concentrating especially on cities that have to face the problems of limited space available and of being less often considered for performing green practices than rural areas and small towns. This is a reason why most city hotels that decide to follow a sustainable strategy usually have to start at the bottom of sustainable development that accounts for restructured long-term saving plans in energy and resource management. However, an advancement of green practices in cities can also be achieved through investments in new technologies, which are not occupying too much hotel's floor space, but have a long payback period (at least 5 years). Those fittings request a long time of planning and cause huge researching costs which are normally the main barrier for managers to become active (Baker, 2005).

One of the first hotels that managed to create a green oasis in an urban surrounding is the Boutique Hotel Stadthalle in Vienna. Through its various technical fittings and its sustainable building construction it achieved a zero energy-balance, which means that all the energy needed to operate its business is produced by the house itself (Conrady, 2011).

Zero-energy housing generally follows passive housing standards, with the approach to reduce energy consumption for room heating. This concept can be fulfilled through good isolation of the walls, floors, windows and the roof. Furthermore installing an adequate mechanical ventilation system and recovering heat from the exhausted air coming from technical operations is vital. To build a Passive House, which saves energy efficiently, is usually 3-5% more expensive than traditional houses, which is clearly offset by the future return of investment (Letcher, 2008).

Other possibilities to save energy are low-energy light bulbs and LEDs. These energy-saving retrofits are usually the first and most often used source to save energy in hotels, because lighting is needed in all parts of a hotel, the guestrooms, public spaces and corridors as well as in the back-of-the house. All these areas have different lighting requirements, as for example, the corridor operates 24 hours a day, while the guestrooms just need light 4 hours a day on average. It is essential for a sustainable and responsible hotel operation management to explore and supervise all different departments and sectors within the property, to install proper electronic equipment and systems and to replace older (mechanical) equipment on time (Bardi, 2010).

Energy-efficient electric motors in air handlers should be used, especially those used all day long in corridors or those usually operating on maximum power in kitchens and bathrooms. It is vital that hotel employees are able to speed up or slow down individual heating and air conditioning motors as slowing down a motor just by 20% results in at least 5% reduction in energy consumption (Bardi, 2010).

Depending on the hotel's geographical location the HVAC (Heating, Ventilation and Air Conditioning) systems are responsible for 50% of hotel's total utility cost, forcing managers to concentrate on enhancing the efficiency of those fittings (Baker, 2005). Managers should always bear in mind that modern air-conditioning systems need 30% less energy than 20-year-old ones, as they are capable of reusing the generated heat for preheating water for swimming pools or laundry (Greenhotelier, 2004).

In hotels it is further recommendable to install an automatic key card system that shuts off the guest room's energy consumption whenever the customer is not in the room. This is already a standard fitting in most new hotel rooms (Rutes, 2001).

Moreover some hotels put printed cards on unmade beds in guestrooms asking the guest whether or not the linen should be changed. The guest's willingness to participate in these initiatives saves the hotel thousands of liters of water, cleaning products and energy per day. The same process can be used to limit the amount of fresh towels needed, e.g. only if they are on the floor, they get replaced (Bardi, 2010).

In order to further reduce the water usage, the water distribution profile of a hotel has to be determined. Guest rooms usually account for half of the water used in a hotel; therefore the reduction of usage has to start here. This can be achieved through water-efficient showerheads (only use 6 liters per minute compared to a conventional showerhead that uses 11-27 liters per minute) or by using rainwater for flushing the toilet (Seneviratne, 2007).

Furthermore, installing aerators (introduce air into the water stream) or flow restrictors is a low budget solution but also a highly effective option. Self-closing taps that use sensors to recognize when the user places the hands beneath the taps are already standard in most public areas. The leakages from taps can waste extremely high amounts of water, indicating the need of proper maintenance work. Further reduction of water can be achieved in a hotel's kitchen, which accounts for 7 to 20% water usage and even more energy usage. In the kitchen it is essential that the employees are encouraged to participate in water saving projects, through turning off taps when not in use, fill sinks for washing pots instead of running water, operating dishwashers just at full load etc. (Seneviratne, 2007).

Another big theme in the hospitality environment is recycling and waste reduction. This starts with small simple changes in working processes. Many supplies can be reused, for example in a hotel bathroom; shampoo containers should be made out of glass and get refilled, replacing the small plastic bottles that end up in the garbage bin at home. This type of waste source reduction helps to reduce waste handling cost, because it avoids additional costs through recycling, municipal composting, combustion and land filling. Hotels are key generators of waste, producing about 100 kg per day. Many hotels sort their waste by taking out liquor bottles, glass pieces and paper in order to resell it (Lebel & Rajesh, 2010).

Food waste is often brought to cattle farms and piggeries to be used as animal feed or food donations are given to NGO's. The latter is not so common as the hotel often has to bear the costs for transportation (Franchetti, 2009).

The three Rs (Reduce, Re-use and Recycle) are of high relevance in the hospitality industry, as paper and composed beverage accounts for 65% of all hotel waste, whereby 95% of this can be recycled or re-used (Lee, 2007).

However, it is not just about saving; it is also about the production and efficient use of energy. Hotel Stadthalle is convinced of renewable energy and therefore gains it's own energy via 130 square meters of solar panels (Conrady, 2011).

Passive solar heating systems are located at the building's roof, facing the south to capture heat of the sun and release this heat during hours without sunshine to keep hotel rooms comfortable without overheating. A single-family home that faces the south with solar panels can cater on average up to 50% of a household's hot water (Letcher, 2008). The French company Accor, has also installed solar energy collectors in 24 hotels, planning to increase the number to at least 100 hotels and investing in photovoltaic systems to generate energy for its Ibis Hotel in Porte de Clichy (Schwab, 2008). Using the sun as energy provider is the most common form of renewable energy used in the hospitality industry.

Hotel Stadthalle wants to go even one step further by using the strength of the wind to gain energy through three wind turbines, located on the rooftop of the hotel (Boutiquehotel Stadthalle Wien, 2011). This project would help the hotel to provide enough own energy for the hotel guests even in the peak hours of energy use, morning and evening hours, as the wind turbines operate also during night times, when no sun is shining for the solar systems. Unfortunately this is still just a theoretical plan, as the regional government has legal concerns that construction laws may get violated (Wojciech, 2010).

Hotel Stadthalle already belongs to the next generation of eco-hotels, as it combines high-tech energy production with young and modern lifestyle and interior design. That means that Hotel Stadthalle has already reached a higher stage of the green hospitality evolution and should be seen as a role model for other tourism actors (Conrady, 2011).

However, every sustainable program and development has to start with including every member of the hotel's staff, through proper training and education.

4.2 Sustainability Training Programs

The provision of sustainable training for the management and employees in the tourism and hospitality industry has only recently become important. It arose from the need to harmonize tourism development with the protection and conservation of the nature (Ellul, 2000).

Tourism is a highly labor-intensive industry and therefore the staff plays a key role in the success or failure of environmental business strategies (Chen, 2009).

Sustainability and green development needs first of all the commitment of the entire organization and a clear direction should be given through a company's environmental policies. A senior or executive manager should supervise and lead the program and further establish a green team comprising a representative from each department. In order to keep a green team motivated and encouraged to seriously participate, it is necessary to present tangible results by displaying absolute percentages of change compared to the previous years (Schwab, 2008).

The Marriott hotel chain, as an example, shares its weekly cost savings on energy bills with every employee through a special Energy Action Board. Moreover the head housekeeper and the financial controller are jointly responsible to remind colleagues to switch of their electrical equipment when not in use, resulting in annual 30% energy costs savings (Schwab, 2008).

The best starting point for the improvement of sustainable procedures is in staff areas, where the guest does not have direct access, as these departments are easier to restructure and to influence than customer areas. Even though in more advanced stages the guests should also form an integral part of the green tourism product (Chen, 2009).

As mentioned afore, no environmental program can be successful unless the staff is committed and understands the need for changes. Proper communications with individual employees on how they can support the sustainable development to reach a target is the key for more engagement. In the best case the employer exemplifies how to responsibly deal with the nature through his own life style (Schwab, 2008).

According to the Carbon Trust organization, more than ¾ of UK employees consider it important to work in a business that has an active policy to reduce carbon emission and are willing to cut energy use. Unfortunately many companies are lacking in guidance and therefore one out of four employees has the feeling that the company does not do enough to protect the environment. Less than 50% are knowledgeable about their company´s environmental programs (Carbon Trust, 2006).

Some hotels, like in the Marriott hotel group, have green ambassadors who train colleagues on sustainable office strategies. Moreover sharing cars with lower emission is encouraged through providing 30 parking areas just for those with hybrid vehicles (Schwab, 2008).

Convincing the staff to actively participate in green programs of a hotel will bring along, additional to the benefits for the nature, positive effects like increased financial returns and efficiency (Chen, 2009).

4.3 Hotel's Eco Certificates

Hotel- and resort organizations are now pursuing environmental improvement strategies for more than 20 years. Originally, their efforts concentrated on reducing costs through energy reduction, minimization of water consumption and the development of computer assisted measurement tools. Today an eco-hotel has to consider much more elements and preconditions in order to be recognized as a authentic environmentally friendly company. For a proper assessment of a hotel's "green" quality and its official public recognition, the industry introduced different types of eco certificates (Honey, 2008).

The application and participation in all these eco certification programs, eco labels, awards, codes of conduct and environmental/ sustainable management systems are handled nowadays on a completely voluntary basis, meaning that no tourism company is forced to join an environmental initiative. Hence it is even more impressive that these voluntary initiatives play an increasingly essential role in regulating tourism operations as well as promoting and improving sustainable development (EPA - Enviromental Protection Agency, 2002).

Through a study conducted by the World Tourism Organization, in which 104 voluntary initiatives worldwide were reviewed, it became evident that the variety and number of eco organizations is continuously increasing. Out of the 104, which include eco-labels, 47% were

just implemented between 1996 and 2000 and further 6% are still in their testing, improving and early implementation phase. This boom could be explained by the free supplementary services offered by green programs (see 4.1.2), for example recommendations for good operational practices are given to companies, which intend to adopt a voluntary scheme or are interested in knowing more about government's and NGO's guidelines for support and supervision of the green initiatives. In any case, the overall awareness and knowledge of environmental threats are growing, but still need to be enlarged (World Tourism Organization, 2002).

The trend to more and varying eco certification systems is a two-sided medal; on one side a company can choose the program that best suits their own business concept and philosophy, but on the other side a common international system would be more beneficial for comparing and benchmarking hotel operations over different countries (Gregorio, 2005). By searching the Internet via the search engine Google one can learn that Australia and Costa Rica are heavily promoting their own national certification organizations, customized to their own needs and in line with national governmental regulations.

However, this document is outlining the major and most common internationally recognized certifications used in the hotel industry.

4.3.1 History of International Eco Certification Systems

In 1992 Hilton International and some other, but smaller hotel groups made one of the first moves towards general eco certifications in the hotel industry. They were the founding members of the International Hotels Environment Initiative (IHEI) aiming at the implementation of valid guidelines within the global hotel business and to raise general awareness for all sustainable issues. The IHEI grew to 86 members involving 11,200 hotels all over the world and was later merged with the International Tourism Partnership, the tourism program of The Prince of Wales International Business Leaders Forum based in London (Honey, 2008).

Meanwhile CERES an US based network of environmental organizations, investment funds and public interest groups launched a similar program, the Green Hotel Initiative (GHI). It focuses on large corporations that use intentionally environmentally friendly hotels for business travel. Unfortunately these networks still lack officially accepted measureable

criteria. To address this problem, a number of voluntary tourism certification programs have been introduced over the last 15 years to truly measure a hotel's environmental and economic impacts, resulting in sixty to eighty international certification programs today. Most of them have their origin in Europe, although there is also a growing number of programs invented in Latin America (Honey, 2008).

However, it is still hard to find a common certification basis that applies for all hotels around the world. The thereby arising problem of comparability can also be found in star rating schemes like Michelin. The French tire company has introduced the first categorization programs in 1900. Unfortunately a lot of other star rating programs emerged, for example the American Automobile Association (AAA) and many other national classifications, making it today even more complex to find common classification rules. The same problem can be found in various "green" certification programs, which were first launched in the wake of the UN's Rio Earth Summit in 1992 (Honey, 2008).

The only chance hotels have to receive comparable data concerning sustainability and environmental protection programs is to hold on some already well-established and internationally recognized programs. Therefore most hotel chains and large resorts are using environmental management systems (EMS), one of which is ISO 14001, an International Organization for Standardization. ISO 14001 can operate on a global base and in different tourism sectors and has tailored standards to individual business needs (see chapter 4.3.2). However, start-up costs for EMS are significant high. For example, medium-sized companies already need to invest approximately 40.000 US$ to run an EMS and larger businesses will need a lot more financial resources to get started. Furthermore, it is very complicated, because of its heavy engineering orientation, concentration on internal operations, without taking into account all sorts of external effects (Aminatuzuhariah , 2007).

The above may have been the reason why "Green Globe 21" has alternatively established itself in more than 40 countries with an impressive number of participants as the only significant international certification program that covers all aspects of the industry. Almost 100 hotels, primarily located in the Caribbean and other prominent tourist locations, have already earned their "Green Globe 21" certification. However, the tight criteria that have to be fulfilled in order to gain a "Green Globe 21" certification could be the reason why many other countries tend to establish their own national classification programs (Honey, 2008).

4.3.2 Major Eco Certification Systems: ISO 14001 and Green Globe 21

The following chapter emphasizes the importance and relevance of ISO and Green Globe criteria in order to achieve a sustainable and green performance.

The ISO 14001 was first published in 1996 and a revised edition was issued in 2004 in order to provide for a tourist organization the necessary guidelines for the implementation and operation of an effective and efficient environmental management system (EMS) (Edwards, 2004).

Figure 5 - ISO 14001 – EMS Certification (Jhaveri, 2011)

The ultimate aim of an effective EMS is to minimize negative effects on the environment and to guarantee constant improvement of an eco-friendly performance. Moreover, ISO 14001 is a management tool that allows not only hotels but also organizations of any type to identify and control their environmental impacts and to set objectives and targets that should be achieved through a systematic and strategic approach (International Organization for Standardization, 2011). A company gains the ISO 14001 certificate only if it achieves all its before set objectives.

Once the originally set objectives have been met, they will form the basis for the daily improvement operations in order to keep the certification. Because real life operations will always generate and demonstrate the need for further development since with the first cycle of implementation only the initial negative environmental impacts will have been minimized and brought under control. Through ISO 14001 implementation companies will gain special knowledge about environmental hazards that have been unknown before and with this new insight they will find additional sources where energy can be saved. Meaning that ISO 14001 is a never-ending cycle of improvement and development (Whitelaw, 2004).

A company that has decided to join the ISO program has to fulfill first some specific EMS requirements in order to be able to set clear targets.

According to Whitelaw (2004) the requirements of ISO 14001 include:

→ "Development of an environmental policy

→ Identification of environmental aspects and evaluation of associated

environmental impact

→ Establishment of relevant legal and regulatory requirements

→ Development and maintenance of environmental objectives and targets

→ Implementation of a documented system, including elements of training, operational controls and dealing with emergencies

→ Monitoring and measurement of operating activities

→ Environmental internal auditing

→ Management reviews of the system to ensure its continuing effectiveness and suitability“

Only if a company knows where it stands in terms of its environmental interaction it will be able to move into correct direction.

ISO is not invented to come up with specific levels of environmental performance, because then specific EMS stasndards for each business would be required and this would again complicate comparisons. Nevertheless, it is inevitable to make at least some country specific differentiations to the standard ISO rules in order not to contradict applicable environmental legislation and regulations. These slight changes should, however, not harm the possibility of international standardization (International Organization for Standardization, 2011). As ISO is not fully universally applicable and many hotels cannot adopt the requirements, another system was needed to keep more hotels on a green path.

Green Globe, which is now seen as the world’s only truly global tourism certification program by many professionals (Honey, 2002), arose from the principles of Agenda 21. Agenda 21 is a general document about sustainable development, which was enhanced by the World Travel and Tourism Council (WTTC), Earth Council and World Tourism Council in 1995 to apply directly to the tourism industry and to develop suitable programs of action. However, the new Agenda 21 for the travel and tourism industry (“Towards Environmentally Sustainable Development”) was still heavily criticized, as it was busy

Figure 6 - Green Globe Certification (Green Globe Ltd., 2012)

designing an environmental management system (EMS) without concentrating on real improvements and tangible outcomes. Moreover Agenda 21 was not taking sufficiently into account variations in tourism operations, like type, location, scale and capital (Kahlenborn, Imbusch, & Turmann, 2000).

Despite of all these drawbacks, Green Globe became the first international scheme committed to social and environmental sustainable practices, as it incorporates the flexibility to accommodate for global, national and even local regulations. Green Globe states clear policies for the travel and tourism industry that are built on the principles of Agenda 21 but all on a voluntary basis. The certification system, based on Agenda 21 and ISO standards, is set up in a way that it responds directly to all major environmental problems that we are currently facing, like energy and water overuse, greenhouse gases, waste production and social issues. Companies are motivated to participate because Green Globe aims to achieve significant savings through less energy and water consumption and minimizing waste (Honey, 2002). Furthermore, the voluntary process standards of Green Globe 21 allow more flexibility for a company's choice of means by which a sustainability objective will be achieved (OECD, 2005). Green Globe 21 was also created to provide the possibility for tourism organizations to globally benchmark their green activities.

It has for 20 different sectors of the travel and tourism industry, four very broad standards only: company standard, standard for communities, international ecotourism standard and design/ construction standard.

In order to gain the entry-level certification, a given company has to reach a predefined baseline of socially and environmentally sustainable performance. After that, the company has further to fulfill all the other requirements included in the standard in order to receive the full Green Globe Logo with the tick (=full certification) (see figure 7; Pizam, 2005).

Once a company gets certified it is allowed to use the Green Globe logo to inform the rest of the world that the company is following a green road (Honey, 2002).

Figure 7 - Green Globe 21 (Earthcheck Pty Ltd, 2012)

Being marked with a "green button", which indicates the concern for the environment and results definitely in a positive marketing effect (see chapter 2.4, 2.5 and 3.1).

In 1999, Green Globe fostered its decision of being a voluntary certification organization with the words "if the industry did not "green" itself, it was likely that government-imposed legislation and regulation would force it to do so" (Honey, 2002, p.302). This means that companies either voluntarily participate step by step now or they get punished later, as they may face new regulations, which will force them to change their business operations immediately. This leads to the next question of what the actually role of the government is in green issues and how they support environmental and sustainable developments.

4.4 Governmental Support

The Government's role in tourism development cannot be described by a general concept or action plan, as the importance of tourism for a given national economy varies widely. For instance tourism may be a much more dominant economic sector in small island states than it is in industrialized countries. Anyway, tourism has always and anywhere played an essential role in creating employment (Kandari & Chandra, 2004).

As a result all governments are forced to come up with appropriate regulations in support of the tourism industry and its implications, which have to be in balance with all other industry segments and people involved in a given country. Unfortunately up to now there is a huge lack of theoretical work that describes the way the tourism industry interacts with its destinations and local inhabitants (Meethan, 2001). This results in a disadvantage that hinders appropriate tourism planning. Since then cooperation of local economies has been improved, but is still very weak (Bookbinder, 1998; Ormsby, 2006).

In the 1970s first criticism on tourism development was made because of the negative effects on the environment and local cultures, especially in third world countries (de Kadt, 1976). Consequently, the quantity of literature on the negative impacts of mass tourism greatly increased in the subsequent years (Brohman, 1996; Clancy, 2001; Cohen, 2004; Gössling, 2001; Lea, 1988; Weaver & Elliott, 1996; Linnard, 2008).

In response to these critiques alternative tourism strategies emerged, like ecotourism, green tourism or nature tourism, which had in the beginning modest success in reducing the disadvantages of mass tourism. One good example is for instance the move towards

alternative tourism because of lower investment costs versus dependence on foreign investment capital (Bookbinder, 1998, Ormsby, 2006).

However, the problem of adapting green tourism is that it is facing a conflict between economic sustainability of the tourism industry and sustainability of the destination's environment (Knowles et al., 2004). Therefore the government is caught between the devil and the deep blue sea. On the one hand if the government would make too strong regulations the economy would flatten out, but on the other hand if they are too weak the environment will be exploited negatively.

Tourism is the engine of modernization, as it is responsible for the expansion of international networks through new communication technologies and transportations (Cohen, 2004; Guneratne, 2001; McMinn, 1997; Zurick, 1992).

In 2003 the OECD has praised Austria's environmental management, as it achieved its national environmental objectives and shows international commitments, by improving and preserving the air and drinking water quality, offering a great sewerage connection system, increasing the rates of recycling and even managed to reintroduce the salmon in the Danube. However, the OECD still sees some possibilities for improvement and recommends Austria to enhance the efficiency of its environmental policies through integrating environmental concerns also in sectors like energy, transport, agriculture and forestry. Changes in these industrial parts would have further positive environmental effects on the tourism and hospitality industry (OECD, 2003).

In 1996 the Austrian government made the decision to introduce an energy and gas tax, which was very moderate and it excluded renewable energy sources and coal from taxation. The intention of these measures was to decrease the pollution of heavy smokestack industries and to change their production methods. But many economist race concerns about the international competitiveness with countries that do not have these regulations, therefore the government had to adjust the amount of taxes to each business sector and give bonuses if companies could manage to decrease their CO2 emissions. Furthermore some policies for promoting sustainable construction were introduced to support solar energy and other environmentally friendly energy production sources. (OECD, 2001)

Unfortunately the Austrian government, especially in Vienna, failed to make some adjustments in their construction policies for simplifying the building and project phase of innovative renewable energy systems. Boutique Hotel Stadthalle in Vienna for example, has to struggle and fight for the legalization of their project to build three wind turbines on the hotel roof, in order to produce own energy, since 2009. The government, pressurized by the hotel's neighborhood, argues that the wind turbines would devaluate the districts outward appearance and too much noise would be produced. In reality the wind turbines would just cause 38-decibel acoustic emission in a high traffic area (Wojciech, 2010).

Anyway, many areas have special construction regulations and some even got clearly marked as conservation areas, which are necessary to protect natural heritage or historical buildings and even city districts. The environmental action plans, particularly for the tourism and hospitality industry, are as well regionally dependent (OECD, 2010).

In the alpine area there are much more regulations and policies then in the cities. The government focuses on the aggregation of farming and tourism businesses, through giving them the possibility to sell private accommodations and honoring their contribution to landscape preservation (e.g.: willows in the highlands and woods to prevent natural catastrophes) through giving them financial support (OECD, 2011).

However, it is a given fact that tourism causes dust, noise and needs a proper infrastructure (hotels, lifts, parking facilities, roads etc.), which again creates more traffic. In order to decrease this pollution, the Austrian government doubled the road pricing and car taxations in 2001, but again made matches to the degree of the energy use of a car. The ecological damage caused by traffic is a serious problem in Austria. The country managed to ban nuclear power but not the cars and transit trucks, as it additionally has to follow the regulations given by the European Union and needs to be easily accessible in order to support tourism (OECD, 2001).

The EU is very serious about fulfilling the Kyoto-Protocol, which should be reached though a border-sharing declaration, to reduce the emission of greenhouse gases within the EU. Austria is performing very well as it operates many hydroelectric power plants for energy production (OECD, 2001).

However, recent measurements of the Austrian's greenhouse gas emissions are not demonstrating sufficient progress towards the aimed reduction, since the economic growth in Austria has caused even more pollution and the emissions are forecasted to reach at least 75 million tons in 2011, versus 68.77 million tons EU-allowance. Up to now, only in 2007, 2008 and 2009 a small decline of emissions has been achieved, which will become evident when the government has to deliver its progress and achievement report to Brussels (Ruzicka, 2011).

In Asia the situation is completely different, as there are no boarder crossing environment-protecting policies in place. Every country has its own strategy to deal with environmental problems. A perfect example for this, but definitely not a role model for sustainable management, is Hong Kong, since it has the freedom of its own economic-development-planning independent from Mainland China. Hong Kong has dangerously high levels of air pollution, high traffic noise and poor marine water quality, thus heavily impacting the environment and the daily life of all residents. However, the government still does not see any need to provide new guidelines for new environmental policies in order to balance economic development and environmental protection (Loh, 2007). One reason for that is the unwillingness to change, the other is the fact that a real improvement of the situation could be achieved only through cross-border cooperation, for example to lower air traffic pollution. In this case the government would have to specify objectives for the minimization of ultra-fine particulates and noise-levels with the help of the World Health Organization (Loh, 2007).

Furthermore, a clearly defined restriction of the traffic circulation in Hong Kong would be needed. Lowering the marine emission is even more challenging as the Hong Kong ports are also connected to Shenzhen, which generates the busiest coastal traffic in the world. That is why Hong Kong and Shenzhen have joint interests to improve water and air quality, in order to adhere to Chinas new and stricter Five Years Plan (FYP) that asks for more energy efficiency and less carbon emission. Hong Kong and Shenzhen are at least now forced to collaborate, to conduct energy reviews and to set green house targets (OECD, 2011).

Water management could also be improved by minimizing domestic water consumption, by means of higher water charges and higher sewage fees. However, this will not happen in the

near future, as it is not common yet to raise fees for public services in Hong Kong (OECD, 2011).

The same could apply for the reduction of solid waste, as without increasing the charges it is hard to believe that something will change. Moreover, the "polluter pays" principle is still just a theoretical idea. Hong Kong sees its chance of being more sustainable primarily in revising their construction regulatory framework by forcing companies to go for high energy efficiency and to provide health benefits for employees. Instead of just boosting economic growth, the government would have to give incentives to promote the use of renewable energy (Loh, 2007).

As specific knowledge and overall awareness about water protection and land biodiversity is still very low, local nature conservation policies are weak in outlining coherent environmental protection rules and plans. The problem of proper planning is that Hong Kong's authorities see themselves caught in the perceived contradiction between economic development aims and green wishes. It would therefore need increased engagement of local businesses, supported by professional leadership, to avoid getting stuck in solely theoretical ideas (Loh, 2007). The government needs to understand, as Loh (2007, p.6), member of Hong Kong's Organization of Civic Exchange, explains that "no economy can be seen as truly competitive when the health of its people is under daily threat from pollution and ecological damage." Furthermore it will be more likely that the society supports green initiatives when they get informed about the pros and cons arising from governmental actions versus status quo. However for the future, Hong Kong has good prerequisites to join the sustainable movement, as the city is wealthy and is able to pay for green transformation needs (Loh, 2007).

The government should not only promote the willingness and openness for being more environmentally friendly, but also encourage engineers and inventors to discover eco-friendly and more efficient technologies. The government therefore would need to use a wide range of policies, flexible and constantly reviewed instruments, "the best mix of complementary, mutually-reinforcing measures" (Loh,2007, p.5) and proper coordination of environmental goals to support cleaner technologies development.

Policies would be needed to ensure that the new investments in technologies incorporate more sustainable technologies and produce greener products, without harming competitiveness (OECD, 1995).

5 Methodology

This section of the thesis concentrates first on the theory of qualitative and quantitative research methods and is then complemented with actual methods used in the research study and the respective results.

5.1 Qualitative Research

Qualitative research is the most common approach for collecting raw data in explorative research projects, whereby researchers are either trying to identify a business problem/opportunity or simply collecting required information to obtain preliminary insights in an unexplored field of research. Moreover it is a tool to develop models for explaining relationships between different influential factors and creating reliable scales to measure market factors, such as consumer behavior (Hair, Busch, & Ortinau, 2000).

The collection of primary data from subjects is primarily done by means of formalized, mainly open-ended standard questions. In order to achieve high quality answers, it is therefore necessary that interviews are guided and conducted by an interviewer, who is well trained on interpersonal behavior, analytical capabilities and interpretation skills.

The main advantage of qualitative research compared to quantitative research is that it is more economical and less time-consuming due to the reduced sample size used. Furthermore, detailed data on personal attitudes, emotions, perceptions and beliefs concerning the research topic can be collected and actual behavior can be investigated and recorded (Hair, Busch & Ortinau, 2000).

However, qualitative researchers are also confronted with two major disadvantages. First, the complex and costly selection of a highly trained interviewer with excellent skills. Second, the limited sample sizes that lead to a lack of reliability and validity and make the generalization process a challenging one (Hair, Busch & Ortinau, 2000).

5.1.1 In-depth Interviews

In order to conduct in-depth interviews, appropriate experts have to be identified. An expert needs to possess a thorough knowledge about the research topic, which is gained either through conducting own research on that topic or through working in that specific industry.

The experts must be willing to share his/her knowledge and individual experiences in order to collect different opinions on the same research field. Through continually analyzing and testing obtained results the researcher comes closer to a meaningful research model (Rubin & Rubin, 1995).

The number of interviews needed for a reliable and unbiased research outcome depends on the quality and complexity of information gained in each individual interview. In case the researcher is confronted with "theoretical saturation" nothing new can be explored and conducting additional interviews becomes redundant (Rubin & Rubin, 1995). In order to receive accurate and detailed statements in an interview, it is essential to not only take detailed notes but also record the conversation. The notes should include the conveyed information and a first interpretation (Babbie, 1998).

Qualitative interviews are characterized by flexible questionnaire designs, which can be restructured during the process. However, a predetermined guideline is needed in order to facilitate the comparison of answers at a later stage (Rubin & Rubin, 1995).

All answers and reactions to the research questions need to be clearly interpreted regarding in which context they were given and who was responding. There are various ways of how to precede an interpretation of qualitative data (Kepper, 1996). Paraphrasing is used to exclude superfluous words and facilitate the comparison of different statements. The aim is to find common and diverse arguments of the experts (Weinhold-Stuenzi, 1994).

It is first essential to identify categories of the given arguments in order to code the text accordingly. Categories are formed through summarizing the most important factors in the research field. Thereafter a comparison of the statements within and between the categories has to be done, through which inconsistencies as well as consistencies are explored and further explained without subjective influences. Each researcher should be faced with the same results by conducting the same research, which is hard to achieve if the interviewer is interpreting too narrowly or personally (Rubin & Rubin, 1995; de Ruyter & Scholl, 1998). Thus, validity can only be achieved if the findings are representing what actually was said and measured (Rubin & Rubin, 1995).

5.1.2 Carrying out Qualitative Research

As this research study aims to gain deeper insights into a hotel's genuine attitude towards sustainability, in-depth interviews with experts from the hospitality industry have been carried out. This is the reason why a flexible guideline has been developed covering questions of all areas of uncertainty. This guideline consisted initially of the following questions; however, the need for adapting and changing the guideline was occurring during the interviews (see appendix 1 for a more detailed list of questions):

1. Are sustainable practices integrated in your business strategy?
2. Are you training your employees on sustainability practices?
3. What are your near future plans concerning sustainability?
4. Are you aiming to get certificates/eco labels?
5. Are you cooperating with non-governmental organizations that are working towards sustainability?
6. Do you think that the government will set some mandatory regulations for hotels in order to protect the environment?
7. In your opinion, is there a relevant change in the attitude of Hong Kong's/Vienna's society regarding sustainability?
8. Do you think that customers are willing to pay more for sustainable hotels?
9. Have you experienced that customers are actively supporting environmentally friendly hotel practices (e.g. leaving the towels on the towel rail)?
10. How do you use the sustainable aspect of your hotel in order to attract customers?

In this research study, six interviews in Hong Kong and four in Vienna were sufficient as the answers received were becoming repetitive. The interviewers, for this BBA thesis, Susanne Klepsch and Julia Schneider, took the role of interested listeners and posed proper questions to guarantee a steady flow of the conversation. Closed questions were only used to probe the answers given to open-ended questions with the purpose of avoiding misunderstandings (Thema-Lyn, 1999).

5.1.2.1 Selection of Experts

The secondary research of existing literature about sustainability in the hospitality industry helped to gain more insight in the study field and assisted in identifying potential hotel experts.

The interviewees were hotel managers or managers of specific departments in well established hotels in Hong Kong and Vienna taking into account that the selected experts had diverse cultural backgrounds. Through the prepared questionnaires (see appendix 1) were aiming to gain deeper insight in a hotel's genuine attitude towards sustainability and how it is embedded in the company's daily business. Therefore hotels that are already known for their sustainable performances as well as hotels that seemed to be unknowledgeable about sustainability have been selected for this study.

In order to avoid one-sided statements and to create an acceptable basis for comparison, six hotel managers in Hong Kong and four in Vienna were interviewed. The selection of the sample was based on the researcher's knowledge about these hotels, which indicates that "purposive sampling" was applied.

In the following paragraph the participating hotels are listed including the interviewees, their name and position, the date of the interviews, the address of the property and the contact details.

Hong Kong:

Mr. Antonio Chan, Chief Engineer at **Hong Kong Disneyland Hotel**
(Fri, 25th February 2011, Penny's Bay/Lantau Island, Hong Kong, Tel: (852) 3550 3944, Fax: (852) 3550 3999, Antonio.chan@disney.com, www.hongkongdisneyland.com)

Mr. Jor Fan, Environmental Management System Manager at **Langham Place Hotel**
(Wed, 02nd March 2011, 555 Shanghai Street, MongKok, Kowloon, Hong Kong, Tel: (852) 3552 3388, Fax: (852) 3552 3322, Jor.fan@langhamhotel.com, Hongkong.langhamplacehotels.com)

Shane Pateman, General Manager of **Novotel Nathan Road Kowloon**
(Wed, 6th April 2011, 348 Nathan Road, Kowloon Hong Kong, Tel: (852) 3965 8888, Direct Tel: (852) 3965 8881, Fax: (852) 3965 8833, Mobile: (852) 6389 8018, Shane.pateman@accor.com)

Ms. Carmen Ng, Environmental Manager for **Langham Hotels International Group**
(Wed, 20th April 2011 at the corporate office: Office Tower, Langham Place, 8 Argyle Street, Mongkok, Tel: (852) 3552 3815, Fax: (852) 3552 3900, carmen.ng@langhamhotels.com)

Mr. Patrick Wong, Director of Projects at **Intercontinental Grand Stanford**
(Wed, 27th April 2011, 70 Mody Road, Tsimshatsui East, Kowloon, Hong Kong, Tel: (852) 27215161 ext. 2578, Mobile: (852) 6305 6082, Fax: (852) 2315 2286, p.wong@grandstanford.com, www.hongkong.intercontinental.com)

Ms. Rita Poon, Hygiene Manager responsible for Green Initiatives at **Grand Hyatt**
(Wed, 04th May 2011, 1 Harbour Road, Hong Kong, Tel: (852) 2588 1234, Fax: (852) 2802 0677, hongkong.grand@hyatt.com)

Vienna:

Klaus Christandl, General Manager of **Hotel Imperial Wien**
(Tue, 11th October 2011 at the Hotel Imperial: Kärntner Ring 16, 1015 Wien, Tel: +43 (0) 1 50110424, Fax: +43 (0) 150110420, klaus.christandl@luxurycollection.com)

Michaela Reitterer, Owner of **Boutique Hotel Stadthalle Wien**
(Mon, 24th October 2011 at the Hotel Stadthalle: Hackengasse 20, 1150 Wien, Tel: +43 (0) 1 9824272, michaela.reitterer@hotelstadthalle.at)

Fanny Holzer, General Manager of **25hours Hotel Wien**
(Tue, 10th November 2011 at the 25hours Hotel: Lerchenfelder Strasse 1-3, 1070 Wien, Tel: +43 (0) 1 521510, Fax: +43 (0) 152151888, fholzer@25hours-hotels.com)

Patrizia Tonin, Public Relations Manager of **Sofitel Vienna Stephansdom**
(Mon, 19th December 2011 at the Sofitel Vienna: Praterstrasse 1, 1020 Wien,
Tel: +43 (0) 1906163106, Fax: +43 (0) 1906163000, patrizia.tonin@sofitel.com)

5.1.2.2 Interview Process and Timeframe

According to Shaw (1999) it is vital that interviews are carried out in a comfortable and familiar surrounding for the expert, as this approach enhances the interviewee's talkativeness and willingness to share knowledge (Kepper, 1996). This is the reason why all the interviews were conducted face-to-face and took place on-site with the exception of the interview with the manager of Disney Land Resort Hong Kong, which was held at the Hong Kong Polytechnic University.

In order to select appropriate interviewees, the Hong Kong hotel market was analyzed and potential candidates were identified, chosen and contacted via email or telephone. After receiving positive replies, interviews were conducted starting at the end of February 2011 and six interviews were completed by the beginning of May. Afterwards, the qualitative research process continued in the middle of October 2011 in Vienna, where another four interviews were conducted. In total, the interviews were completed within ten month.

In the course of the interviews, merely open-ended questions were asked, which enhanced the interviewee's willingness to talk and to share insider information. Internal company's websites were also recommended and brochures were given away including information about their green programs. Moreover most of the interviewees gave us the opportunity to visit the hotel site in order to receive evidence of their active participation in green programs.

In the next chapter the findings of the qualitative research will be presented.

5.1.3 Results of the In-Depth Interviews

The results of the qualitative in-depth interviews are first summarized and then structured into two tables (see below). The first and second table comprises information from the Hong Kong and Vienna interviews respectively. At the end of each table the most important statements are described in more detail. Finally, similarities and differences are identified between Vienna and Hong Kong.

5.1.3.1 *Hong Kong*

Major similarities of Hotels

Major differences between Hotels

	Langham Hotels International Group	Langham Place Hotel	Intercontinental Grand Stanford	Grand Hyatt	Hong Kong Disneyland Hotel	Novotel Nathan Road Kowloon
Joined Program	- Earth Check - Green Team	- Earth Check - *ISO 14000* - Earth Hour - Green Team - Environmental manager	- Earth Check - Own program - Green engagement - Green committee/team	- Hyatt Earth Program - Own platform, directives from head office in Chicago - Green Team	- Own Guidelines - Sustainable Reports of World Disney Company - Green Team	- *Green Globe* - Green Team
Enviromental Initiatives/ practices	- Waste management (reuse shampoo bottles, recycle electronic items, safe paper) - Towel/linen guest card - Key card system - Water saving fittings (e.g. showerheads) - LED lighting - Energy saving through recovering heat from the chillers to heat water, share laundry with another Langham hotel in Hong Kong - Joined charity programs (charity run, food donation, work with locals)	- Waste management (recycle cooking oil and use it as biodiesel for hotel's truck, glass recycling) - Water saving fittings - LED lighting - Towel/linen guest card - Key card system - Sustainable purchasing (do not sell fish or meat from endangered species) - Joined charity programs (charity run, food donation, work with locals)	- Waste management (recycle plastic bottles, carton, aluminum cans, glass) - Linen guest card -Water saving fittings (e.g. sea water for chiller) - LED lighting - Energy-saving through centralized AC system, reuse steam from laundry plant, foils on window to min. heat production through the sun - Recycle kitchen oil; donate food to local charity org. - Joined charity programs (for kids and mentally ill people)	- Waste management (recycle glass) - Water saving fittings - LED lighting - *No key card and towel/linen guest card* - Window stickers, ventilation to reduce AC - Recycle food for fish, give bread leftovers to employees and the rest to the organization "Food Link" - Joined charity programs (supporting locals)	- Waste management (12 types of waste bins, decomposing) - Towel/linen guest card - Key card system *(room sensors)* - Water saving fittings - LED lighting - Joined charity programs (plant trees, clean harbor, green tracks for blind people) - Reclaim land	- Waste management (plastic/glass recycling) - Towel/linen guest card - Key card system - Water saving fittings (e.g. *toilet-seawater)* - LED lighting - Higher room temperature to reduce AC - Recycle food for fish - Carbon audit to measure carbon footprint, noise level & energy use - Sustainable purchasing - Joined charity programs (AIDS foundation China, cleaning the beach)
Staff training	- Trained on energy and water saving, waste handling and pollution issues - Specially trained on water saving (already 20% less water used) - Collect electronic items to reuse - *Cannot see a deeper sense in voluntary activities* (too few possibilities)	- Trained on energy and water saving, waste handling and pollution issues - Must participate in a community event minimum once a year	- Trained on energy and water saving, waste handling and pollution issues - Voluntary participation in green education programs and activities (tree planting, beach cleaning) - Green results of each department are supervised by management	- Trained on energy and water saving, waste handling and pollution issues - Special training for recycling (battery collection, oil and food recycling in the kitchen) - First train department heads and they train their subordinates - Monthly meeting of green committee	- Trained on energy and water saving, waste handling and pollution issues - Special recycling training in the housekeeping department (12 different bins)	- Trained on energy/water saving, waste handling and pollution issues - Waste separation in the housekeeping department - Encourage staff to raise ideas on sustainability improvement - Green seminars and annual trainings - Voluntary participation in e.g. beach cleaning - Employee's organic garden

Marketing	- *Green = is expected from customers* - Information on website - Must put their policies in the lobby because of Earth Check - No direct relationship between the room rates and being green	- *Green = is expected from customers* - Information on website - Has magazine-type hotel directory including green issues - Give seminars on sustainability issues to other hotels - Must put their policies in the lobby because of Earth Check - No direct relationship between the room rates and being green	- Information on website - In-house magazines - Marketing through certifications - If the difference in price is only small, a sustainable, but more expensive hotel would be preferred	- Information on website - No direct relationship between the room rates and being green	- Information on website - No heavy promotion as Disney brand is much stronger - No direct relationship between the room rates and being green	- Green = marketing tool - Information on website, Facebook page - *Feedback forms* in guest rooms - Display sustainable policies in the lobby, own TV channel, energy saving recommendation - Newsletter - No direct relationship between the room rates and being green
Customers	- Guests are excited about green as they use smart technology (Ipad) to display information - 80%-90% of all guests reuse shampoo bottles - Companies seek information about their own carbon footprint when staying at the hotel	- Welcome green programs, but some complaints because of reduced laundry service - Some MICE and corporate customers demand green, but this will not influence final booking decision to a high extent - Brand is more important for guests as green is taken for granted	- Guests ask for certifications especially corporate guests send questionnaire about green issues before deciding to hold a meeting in the hotel - Less requests from individual travellers concerning sustainability - Some are not concerned at all as they just want to enjoy a 5-star service	- Increased interest of guests in green initiatives (a lot of questions on the internet) - Some complaints	- *Awareness depends on guest's origin* (Europeans interested, Chinese less) - No complaints about limited cleaning service	
Hong Kong	- Hong Kong is a laggard in sustainability - Has to pay a company to pick up their recyclable waste - Hong Kong follows the free market approach and is therefore reluctant to make laws and restrictions	- Hong Kong is a laggard in sustainability - Received Gold at Hong Kong Award of Excellence 2011 - Wish to have more support such as waste picking up services free of charge	- Hong Kong is a laggard in sustainability - Received bronze at the Hong Kong Award of Excellence 2009 - Joined a program by the Hong Kong Productivity Council focusing on waste, energy, recycling & education - Hong Kong follows free market approach	- Hong Kong is laggard in sustainability - Hong Kong is not environmentally friendly - Received bronze at the Hong Kong Award of Excellence 2011 - Concerned about food waste management (3300 tons of waste per day in Hong Kong)	- Hong Kong is laggard in sustainability - Hong Kong's sustainability is in its infancy - Got Hong Kong's Environmental Goal Award every 2nd year so far - Claims all regulations are voluntary	- Hong Kong is laggard in sustainability - Hong Kong less regulations, but certifications (e.g. Quality Water Building Recognition Scheme) - Claims all regulations are voluntary
Future Plans	- More LED lights - Less paper usage through new technologies	- Engage the guests to actively support green initiatives - More LED lights - Less paper usage through new technologies - Join online green booking networks - More staff training - Improve chillers, when old break down	- Currently renovated to decrease energy usage (through new AC etc.)	- 2012 major renovations - Key card system - Green design - Keep customer's satisfaction high	- *Use solar panels* - Reclaim land	- Do more for local community - Get more local certifications

Table 1 - Comparison between different hotels in Hong Kong

The most important statements of hotel experts from Hong Kong are referred to in the next seven subchapters: Joined Program, Environmental Initiatives/Practices, Staff Training, Marketing, Customers, Hong Kong and Future Plans. The subchapters' titles are based on the structure of table 1.

First of all, attention is given to the subchapter "Joined Programs", as all interviewed hotel experts have mentioned at least one of these programs their hotel is involved in. If a hotel does not fit into the structure of a sustainable program (see chapter 4.3), they usually implement their own monitoring system.

5.1.3.1.1 Joined Programs

All hotels with the exception of the Langham Hotel refuse to participate in the ISO classification scheme. They argue that ISO requires too much paperwork and time, which could be used more productively. Therefore they implement their own green program for supervising and measuring their green performance. The Langham Group, however, believes that ISO is a good system with the only two disadvantages of being overgeneralized and thus, applicable to all different types of industries. This is the reason why they additionally use Earth Check, a certification program that is tailor-made for the tourism industry. ISO only monitors processes, but neglects performances. Earth Check complements this system with substantial performance monitoring. Intercontinental has joined Earth Check in 2008 for similar reasons. Novotel, however, is the only hotel aiming for Green Globe certification.

In the next subchapter the individual environmental initiatives of hotels are described. Some of those initiatives are already taken for granted in every hotel operation while others are innovative and are aiming at competitive advantage.

5.1.3.1.2 Environmental Initiatives/Practices

All interviewed hotel experts are mainly focusing on the 3 R's (recycle, reuse, reduce) for waste, energy and water saving. All hotels have already installed flow restrictors in showers and taps and Novotel goes even one step further by using seawater for flushing the toilet. Moreover LED lighting has established itself as a standard in all hotels. For instance, through LED lighting Disney managed to decrease electricity costs by 10%. All hotels with the exception of Grand Hyatt have installed key card systems for saving energy and costs as these systems disable all energy-supplies whenever the room is not in use. Disney Land Resort has even installed motion sensors in guestrooms in order to switch off energy sources

whenever the room is unoccupied. Furthermore all hotels provide signs in every room asking the guest to put their towels on the floor if they want them to be changed. Grand Hyatt will not apply guest cards as the General Manager feels that they do not correspond to their five star service reputation.

One of the largest hotel problems is the recycling of food waste by transporting waste to social institutions or reusing waste as animal feed or fertilizer, as both options are very costly. All participating hotels in this study supported this statement. The Grand Hyatt is the only hotel interviewed that managed proper use of food waste.

Moreover all hotels participate in charity programs, as they want to give something back to the community.

All of these environmental practices could not work out without involving the hotel´s staff (Cooperman, Andreas, & Gifford, 2011). The different opinions and approaches of hotel managers on staff training are discussed below.

5.1.3.1.3 Staff Training

First of all, it should be mentioned that all hotel experts perceive employee training on energy and water saving, waste handling and pollution issues as highly important. According to Mr. Chan, chief engineer at Disneyland Resort Hong Kong, acting environmentally friendly increases the workload of an employee by only 5 % on average, but can make a tremendous difference to the environment. Further, he believes that the staff is already prepared to do it and stakeholders even expect it.

The Langham Place Group admits that employees would be more motivated if various opportunities to volunteer would be given to them, but as there is no person responsible for organising relevant community events these options are currently very limited. The manager of Langham Place understands clearly that employees want to do something more meaningful than “tree planting”.

After a hotel organisation has managed to communicate a sustainable and green attitude to its own employees and internal staff, the next step is to publicize the hotel’s green spirit to the outside world. A favourable method to get external attention is to implement

sustainable marketing initiatives. Some examples of conveying this message and the hotel experts' attitudes towards green marketing are given in the next subchapter.

5.1.3.1.4 Marketing

All hotels provide information about their environmental initiatives via their website. Novotel even provides feedback forms in their guest rooms to gain more information concerning customer opinions and demands in regards to sustainable issues.

Disney Land´s sustainability is not separately promoted as their focus is on the well-established Disney brand, which is the prime attraction for the guests.

According to Hyatt money is always an issue when it comes to new sustainable fittings. Disney claims that implementing sustainable fittings usually does not affect the room prices, because new projects need to be self-financing no matter how much they mitigate a hotel's negative impact on the environment.

Novotel puts most of their effort into promoting sustainability by displaying copies of their sustainable policies in the lobby to raise awareness among guests. Furthermore, they have a TV channel in all guest rooms that shows policies and energy saving recommendations. This channel also provides information on and encourages guests to participate in the "Earth Hour", an hour every year in which everyone should switch off all electricity. Novotel also has a Facebook page on which they post sustainable issues with have online reaction from costumers and potential guests. Moreover they have a newsletter called the Green Globe. According to Mr. Pateman, some people even choose the hotel primarily due to its green strategy. Thus, not only is being green cost-saving, but it also acts as a marketing tool. Even on TripAdvisor and other hotel review platforms people leave comments about the hotel's good environmental policies. In summary, according to Novotel, environmental policies are supportive of a hotel's marketing and positioning activities.

Langham Place Group sees sustainability as a basic service provided to their guests and not as a particular feature that adds value to a room. According to the Langham Place Hotel, customers are primarily choosing their hotel because of its brand and reputation; not because of their green policies, which are often taken for granted. Although Earth Check requires them to post their green policies in the lobby, the Langham Place Hotel is otherwise

not heavily promoting their sustainability, as they want to make sure that all operations are environmentally friendly before they start to involve their guests.

The Intercontinental Hotel promotes its green initiatives in their in-house magazines. They do not want to call themselves a genuine "green hotel" because this image would not be cohesive with their primary marketing strategy. The Intercontinental agrees with other hotels that there is no direct relationship between the room rates and sustainable initiatives, as the room rate still depends entirely on the market. However, Mr. Patrick Wong (Director of Projects at Intercontinental Grand Stanford) believes that if there are two very similar hotels, but one is more sustainable than the other, people would be willing to pay a premium to stay in the more sustainable one.

All the marketing efforts should lead to an increase in customer demand and consequently to higher occupancy rates. The next subchapter reviews the characteristics of guests staying at the interviewed hotels and their attitude towards sustainability.

5.1.3.1.5 Customers

Hyatt and most of the other hotels are convinced that there is an increased guest interest in green issues, especially within their target market of business and corporate travellers. The manager of Disney Land Resorts added that it also depends on the guest's origin, e.g.: Europeans are very interested in sustainability while Chinese are less so.

Langham Group said that there is a high acceptance of green initiatives among guests, which they managed by promoting sustainability through high technology items such as guest phones and iPads, which have integrated screens that can display information about the hotel and its green initiatives. The increased use of technology is also paper saving because the need for printed information material is diminishing. Another sign of customer acceptance is that whenever room maids were supplementing already opened shampoo bottles with new ones, 80% to 90% of all guests would use the old one again instead of opening a new one. This shows that guests are already environmentally conscious and not prone to be wasteful. Furthermore, business travellers of many large companies increasingly ask for information regarding carbon footprints created during their journey. This is especially true for hotels in Hong Kong, for which business travellers are very important and therefore the hotel's carbon footprint is increasingly checked.

Langham, being a five star hotel, has also received some complaints because of the reduced laundry service due to their water saving efforts. On the other hand, some MICE and corporate customers require a hotel to be green, but it is not common that a hotel's sustainability determines their final booking decision.

The Intercontinental goes even further by stating that more and more corporate guests decide to arrange a meeting at a hotel provided that the hotel is dedicated to green policies. Leisure guests rarely send such information requests in advance. Although the Intercontinental receives positive feedback from its individual guests occasionally, some guests are still not very environmentally conscious because they expect a certain service quality from a five star hotel and do not want to face any restrictions.

Moreover it has to be mentioned that customers are not only influenced by hotels' green marketing activities, but also the city and local government can influence the customers buying decision. The government even has the power of forcing the hotel industry to operate in a more sustainable way. Below the perceived involvement of Hong Kong´s government is described through statements made by hotel experts.

5.1.3.1.6 Hong Kong

All hotel experts agree that Hong Kong, compared to other countries, is slow in adapting to new green initiatives and that more should be done. Novotel's manager further explains that the HKSAR government is lacking strict enough regulations and is not stringent on enforcing policies. He claims that all regulations are on a voluntary basis, but future plans to implement stricter regulations on waste disposal and recycling are already under negotiations. According to Mr. Wong (Director of Projects at Intercontinental Grand Stanford) the government tries to follow a free economy approach in order to attract more foreign investment to Hong Kong. They are afraid that if Hong Kong is implementing too many new policies, important companies will be weary of doing business there. However, all hotels appreciate the green awards given by the government in order to honour green development.

Hyatt raised concern over high amounts of food waste, as there are 3300 tons per day in Hong Kong and 200 tons could be potentially reused. Unfortunately the Hong Kong government is not doing anything to support any reuse programs. Furthermore, a

monopolized supplier delivers Hong Kong's traditional electricity and therefore companies are forced to contract with them and have no chance to use renewable energy sources.

Moreover, there is no recycling plant on a governmental level in Hong Kong. This means that everybody relies on private recycling companies that are processing the waste in China, thus causing tremendous transportation costs and negative environmental impacts. If China would suddenly restrict any waste imports, it would cause severe problems for Hong Kong as all waste would be worthless.

All hotel experts are aware that there is still room for improvement of sustainable hotel operations. All of them are already working on plans for decreasing their own carbon footprint. Some examples of future developments are described in the next chapter.

5.1.3.1.7 Future Plans

All of the interviewed hotel managers have specific plans in place to improve their green programs and environmentally friendly fittings to show more green responsibility.

Hyatt and Intercontinental are even planning to undertake major renovations implementing a greener and more energy efficient design. Disney will be the first hotel in Hong Kong to use solar panels with an expected payback period of 10 years.

The Langham Place is planning to join a green online booking platform in order to better promote their sustainable philosophy. Furthermore, their next future plan is to improve their air-conditioners to safe energy and to be more efficient. However, the basis for all investment decisions depends ultimately on costs and return on investment, which is the reason why they will only install new air-conditioners once the old ones are worn out.

The manager of the Langham Hotel Group candidly states that their green initiatives are primarily aiming at saving costs and usually do not reflect the management's concern about the environment. For more detailed interview responses, please refer to appendix 2.

In the next chapter 5.1.3.2 the statements of hotel experts from Vienna are explained in order to come to a cross-country comparison between Hong Kong and Vienna at the end of this research study.

5.1.3.2 *Vienna*

Major differences between Hotels | Major similarities of Hotels

	Hotel Imperial Wien	25hours Hotel Wien	Boutique Hotel Stadthalle Wien	Sofitel Vienna Stephansdom
Joined Program	- National classification programs (Österreichisches Umweltgütesiegel) - Follow standards of the hotel chain (Starwood hotels)	- No green classification programs joined	- Quality assurance policy - Active participation in "Green Brands" - All awards received without applying	- Follow standards of the hotel chain (ACCOR) - ACCOR received first place at "Tomorrow's Value Rating" of the biggest hotel chains worldwide
Enviromental Initiatives/ practices	- First priority: social projects/community engagement (provide education) - Resource management (LED lighting, water flow restrictors, green guest card) - Waste management - Four pipe water system	- First priority: social projects (Rote Nasen, Movember) - Waste management (*shredder for bio-waste, reusable shampoo bottles*) - Resource Management (LED-lighting, water flow restrictors) - Biological cleaning products - *Duck pond* - Reuse secondhand furniture - Offer bicycles to guests	- First priority environmental protection - Resource Management (LED lighting, green guest card, no AC, use of rain water etc.) - Waste Management - Construction: Hotel is a *passive house*, *photovoltaic system*, solar panels, - Bio- Products & short distance food - Offer bicycles (reduce room price if guest travels by train)	- Social (AIDS campaign) and environmental projects (tree planting) have same priority - Construction: solar panels, *room supplied with energy only after check-in* - Waste management - Resource management (special energy system)
Staff training	- Constant supervision and training on more efficient resource usage - Voluntary money-collecting events for UNICEF and participation in a biking race	- *Sustainable behavior on a voluntary basis* - Trained on green issues at the beginning of the employment only	- First priority - Constant supervision and training on more efficient resource usage - Seminars	- Constant supervision and training on more efficient resource usage
Marketing	- No active promotion of green programs - Being green is not a competitive advantage - Short section on sustainability on their website	- No active promotion of green programs - No information on sustainability on their website	- *Use their green movement as a marketing tool (first zero energy balanced hotel in Vienna)* - *Seminars on sustainability are organized* - All information about green practices on the website - *Member of green travel booking platforms*	- No active promotion of green programs - Being green is not a competitive advantage - Short section on sustainability on their website
Customers	- Some customers do not care - often guests from Golf Region - Most business guests take green operations for granted (would not book if not green)	- Change of tourists' attitude towards sustainability	- New target group: companies that work in the environment protection sector - All guests actively participate in sustainability - Young people love green, but will not pay for it	- Most business guests take green operations for granted
Vienna	- No need for more government regulations - Too many rules and restrictions - Focus on wrong problems - Waste management should be improved	- No need for more government regulations - Too many rules and restrictions - Waste management should be improved - Should make the donation of food legal	- No need for more government regulations - Most laws need to be updated - Waste management should be improved - *Received support from the Austrian's Energy Forum for their photovoltaic system*	- No need for more government regulations - They voluntary want to do more for a healthy environment
Future Plans	- Improve heating and AC system - Change all bulbs to LED lights	- Use the roof for beehives	- Stay up to date with green fittings	

Table 2 - Comparison between different hotels in Vienna

The most important statements of the interviewed Viennese hotel experts are once more described in the next seven subchapters including: Joint Programs, Environmental Initiatives/Practices, Staff Training, Marketing, Customers, Hong Kong and Future Plans. The subchapters' titles are based on the structure of table 2.

The decision to participate in a green certification program or sustainable development control systems illustrates a hotel's business attitude towards an ongoing sustainable operation development (Black & Crabtree, 2007). In the next section the most important statements of the Viennese hotel experts are summarized.

5.1.3.2.1 Joint Programs

None of the hotels that were interviewed apply ISO standards. Hotel Imperial has joined a national classification programs with great success and has already received the "Umweltgütesiegel" three times in a row.

Both Hotel Imperial and Sofitel Vienna follow their own hotel chain's sustainability standards. Hotel Imperial is obliged to send a sustainable report twice a year to the Starwood's headquarters to prove that they have reached their short-term goals and came closer to their long-term goals of reducing their energy consumption by 20% and their water consumption by 30% within the next ten years. They are particularly concentrating on energy and water saving measurements as these resources account for the main operating costs. Sofitel Vienna obeys to the standards of their hotel chain ACCOR. Their "Earth Guest" program consists of two parts, the EGO project (for the social and health sector) and the ECO project (for the protection of the environment). ACCOR's success in sustainability is marked by receiving the first place of "Tomorrow's Value Rating", which rates the largest hotel chains worldwide.

All interviewed hotel experts refuse to participate in ISO as they believe that it requires too much time, effort and money. Ms. Michaela Reitterer, owner of Hotel Stadthalle, adds that it is always difficult to certify a service comprising of many employees. Instead she decides to focus on their employees by installing a tailored quality assurance policy. However, they actively participate in "Green Brands" as they believe that they will gain a marketing advantage through it. All other certifications they received, such as the Blue Hotel Award, the TRIGOS Österreich, OEGZ Sterne Award 2011, Klimaschutzpreis and others were actually never applied

for. Hotel Stadthalle sees its obtained certifications as a useful marketing tool and a great way of promotion.

25hours Hotel has not joined any green classification programs as they are not explicitly targeting green travellers and do not see possibilities to become entirely green.

If a hotel does not participate in any classification programs it does not necessarily mean that it is not sustainable. In order to clarify this statement, the individual environmental practices of each interviewed hotel are summarized below.

5.1.3.2.2 Environmental Initiatives/Practices

All interviewed hotels try to improve their hotel's resource management by limiting their water and energy consumption and managing their waste more efficiently. However, Hotel Imperial and 25hours Hotel see their first priority in social sustainability. Imperial Hotel believes in supporting people in need by providing education and guidance instead of only donating money. 25hours Hotel participates in social projects at least once a year, e.g. this year they plan to organise an event in order to collect money for the organisation "Movember", an organisation that uses donations to fight against prostate cancer. Sofitel is engaged in social programs as well, through the Earth Guest program of ACCOR, which supports the fight against AIDS. The ACCOR Earth Guest program also covers environmental protection programs, of which one aims to increase the number of trees in the Vienna woods.

On the contrary, Hotel Stadthalle has barely joined any social programs. Instead, they have decided to spend more time and money for protecting the nature. Apart from basic functional fittings (key cards, water restrictors, LED lighting, etc.) Hotel Stadthalle has a photovoltaic system and is built as a passive house (investment costs: 5.3 million Euro) that stores energy in a way that no heating or air conditioning is necessary. Furthermore they are offering only bio-products to their guests that are delivered on the shortest distance possible.

Sofitel Vienna also included renewable technologies in their construction planning e.g. solar panels for water heating. Moreover their energy system has an interface with their hotel reservation software in a way that the hotel room is supplied with energy only after the guest checked in to the hotel.

Both, 25hours Hotel and Imperial Hotel are convinced of LED-lighting although they believe that the luminous colour it is not suitable for all rooms of their hotel. Imperial further changed their centralized heating and cooling system from a two-pipe system (which can cool or heat only) to a more energy sufficient (does not mix cold and hot water) and more consumer friendly (can be cooled and heated at the same time) four-pipe system. 25hours Hotel does not have any special heating system and they did not include any renewable technologies during their construction. They focus on waste reduction through using reusable shampoo and soap-dispensers. Moreover they have up to 80% second hand furniture in the hotel and only use bio-cleaning products. Hotel Stadthalle and 25hours Hotel offer bicycle for rent to their guests and therefore support a car free environment. Hotel Stadthalle even reduces the room price by 10% whenever the guest arrives with a bike or travels by train.

All these changes in a hotel operation can only be achieved efficiently if there is a clear internal communication of the sustainable strategy and the resulting green procedures in a hotel. Therefore all hotel experts claim that it is inevitable to involve and educate all staff members in terms of sustainability. The different opinions are summarized in the following subchapter.

5.1.3.2.3 Staff Training

At Hotel Imperial, Sofitel and Hotel Stadthalle employees are supervised and continually trained on more efficient resource usage. 25hours Hotel only trains employees on environmentally friendly workflows at the beginning of their employment and is convinced that employees follow green workflows voluntarily thereafter. The general manager of Hotel Imperial, Mr. Christandl, believes that most employees do not really care about being sustainable and that is why they have to be reminded constantly. Hotel Imperial organizes together with their employees a voluntary money-collecting event for UNICEF every year. Every Starwood hotel can freely decide which event they want to conduct together with their employees in order to support either the local community or an international organisation.

Ms. Reitterer of Hotel Stadthalle is convinced that training employees is the most important task to fulfill. In her opinion, sustainable training is a never-ending process

and it is indispensible that all employees truly live a green life. They have to understand the importance of the environment and gain a thorough knowledge in order to judge what helps the environment and what destroys it. This is the reason why Hotel Stadthalle does not have any services outsourced; all knowledge is provided by their own employees through ongoing seminars and training events.

In addition to all cost saving effects of green operations, some hotels want to further gain competitive advantage through green marketing initiatives. The hotel experts have different opinions regarding this topic, which is discussed in the following chapter.

5.1.3.2.4 Marketing

Hotel Imperial, Sofitel Vienna and 25hours Hotel do not specifically promote their environmental programs as the managers believe that most guests already take sustainability for granted. According to their experiences, those guests who are especially interested in the hotel's sustainable initiatives will inquire about them personally. The general manager of Hotel Imperial and the PR manager of Sofitel both claim that being green is no longer a marketing advantage to attract customers. However, neglecting green initiatives can be seen as a disadvantage. Mr. Christandl further explains that it is more valuable and efficient to change the attitude of employees rather than customers, as employees can be more heavily influenced.

Hotel Stadthalle perfectly uses its green movement as a marketing tool. As this hotel is the first zero energy balanced hotel in Vienna it is of great interest to the media and the entire tourism industry. They even organize seminars for companies that are interested in entering the green path or those working in a business that is related to sustainability. Ms. Reitterer is convinced that her green marketing is so successful due to the fact that she truly lives green, not only in her daily business but also in her private life. Hotel Stadthalle has also joined green travel platforms such as Verträglich Reisen, Fair Reisen etc.

The 25hours Hotel does not deliberately promote their few sustainable initiatives, as they are not yet sufficient for positioning the hotel as a sustainable hotel in consumers' minds. Ms. Holzer thinks rather economically, meaning that they

implement green initiatives only if they can be included into daily business without hindering the day-to-day operations.

Before starting a green marketing campaign it is necessary to define a target market and to predict the change in customer behaviour as well as their buying decisions (Reid & Bojanic, 2010). In the next subchapter, the customer's awareness of the need for a sustainable industry is evaluated through statements made in the in-depth interviews.

5.1.3.2.5 Customers

Mr. Christandl from the Imperial Hotel said that some of his guests refuse even to listen to his front office employees when they start to talk about the sustainable movement in the hotel. These guests are often coming from Golf Regions, as they are not yet used to dealing with limitations of certain resources. The owner of Hotel Stadthalle also perceives Arabic travellers being less concerned with energy saving, but she believes that they are more careful than Austrians when it comes to water usage.

In general, all hotels agreed that the majority of business guests perceive it as a standard that a hotel participates in environmental protection activities. Sofitel Vienna states that this opinion is even true for the luxury tourism segment. Furthermore the young generation's awareness is growing, but there are doubts that they would pay a premium for staying in a green hotel. According to the Mr. Christandl of Imperial Hotel, many companies would not book a hotel that does not care about the environment, but on the other hand approximately 10% of them are willing to pay a premium for staying in a sustainable hotel. This being said, it is interesting to note that none of the interviewed hotels had to raise room prices due to the high investments in sustainability.

The 25hours Hotel is convinced that there is already a visible movement towards sustainability within their guest segment of 20 to 50 year old travellers. Hotel Stadthalle found a new target group in companies that are working in the business field of green development. These business travellers prefer to stay in an eco-friendly hotel in order to emphasize their own green attitude.

This green customer movement may be further enhanced through active participation and support of the local government. The interviewed hotel experts were asked about their own need and perception of the government initiatives such as provision of laws and standards for protecting the environment. Their answers are summarized below.

5.1.3.2.6 Vienna

Hotel Imperial, 25hours Hotel and Sofitel Vienna do not feel a need for more government-driven environmental regulations, as there are already too many rules and restrictions in force. Hotel Stadthalle claims that there are restrictive construction rules and as the green movement is rather new, a lot of regulations and laws need to be newly invented. However, they were very satisfied to receive financial support form the Austrian's Energy Forum for the construction of the photovoltaic system. According to Mr. Christandl, the Austrian government focuses unnecessarily on problems that are not even an issue in other countries. He believes that a sustainable movement must come from inside the company and must be authentically believed in, because this is the only way to achieve valuable changes. One main area of improvement in Vienna is waste management, because the sorted waste is not kept separated by the governmentally owned waste disposal company. Furthermore, the 25hours Hotel claims that the government should find better ways to recycle or even reuse food leftovers. In Austria it is due to the strict food regulations almost impossible to donate food to charity organizations or people in need.

However, as sustainable development is still a young topic in the hospitality industry and new technologies are enhancing this development rapidly, continuous improvement is necessary and future plans are developed as below.

5.1.3.2.7 Future Plans

Hotel Imperial is planning long-term investments in LED lighting and is aiming for improvements of the hotel's heating and cooling systems to safe energy. Hotel Stadthalle aims to continue using state-of-the-art technology and to expand their current market position through developing the first green budget hotel. The 25hours Hotel wants to use its limited space on the roof, which is currently unused, for beehives in order to produce their own honey. The recently opened Sofitel

Vienna is still in the evaluation process of identifying improvement areas and will define future plans accordingly. For more detailed interview responses, please refer to appendix 3.

In the next chapter the previously identified differences and similarities of hotels in Vienna and Hong Kong are selected and put in a table to get a cross-country comparison between both cities (see table 3). Later these findings are described in more detail in a full text summary.

All this is done in order to find out if the geographical locations and the cultural backgrounds have an influence on hotel organization's handling of sustainable issues.

5.1.3.3 Comparison of Hotel Expert's Opinions in Hong Kong and Vienna

Hotel Expert's opinions…	… in Hong Kong	… in Vienna	Category
… main differences	- Mainly participate in international green programs e.g.: Earth Check	- Mainly participate in national or own green programs	Joined Programs
	- Chillers produce the biggest portion of energy costs - No solar panels build up to now (lack of space) - Role model for green operations: Hotel Nathan Road Novotel	- Heaters produce the biggest portion of energy costs - Some hotels already installed solar panels - Role model for green operations: Boutique Hotel Stadthalle	Environmental practices
	- All hotels promote their green operations and attitude, but to different extents - Focus on high-tech gadgets in guestrooms to convey green thinking (iPad, screen, phones)	- Green operations are hardly promoted, only if the hotel is totally green - Just convey green information if requested from the customers, no displayed information	Marketing
	- Hong Kong has not enough green regulations, all are voluntary	- Vienna has too many mandatory regulations and rules	Cities
... main similarities	- Almost none of the hotels apply ISO standards		Joined Program
	- Staff training is essential and a good investment for becoming more sustainable		Staff Training
	- The green movement is triggered by hotel operators cost saving attitude - The change to green operations does not effect the room prices		Marketing
	- Business travellers are perceived as the major target group for sustainable hotels - Increasing guest interest in sustainability		Customers
	- Problem with food waste handling & recycling of waste		Cities

Table 3 - Cross-country comparison between Hong Kong and Vienna

In the following chapter the most important findings gained through the comparison of hotels in Hong Kong and Vienna are explained in more detail.

First of all, all interviewed hotels, with the exception of the Langham Hotel, refused to participate in the ISO classification scheme by arguing that ISO requires excessive amounts of paperwork and time, which could be used more productively in other areas. However, differences can be found in their opinions about other, more suitable programs for the hospitality industry. In Hong Kong, most hotels have joined

the international classification program “Earth Check” as it provides advanced possibilities of international benchmarking. On the contrary, Viennese hotels are more likely to rely on national and self-established programs, as they are perceived as more appropriate for the hospitality industry.

In general, hotels in Hong Kong and Vienna face different challenges in the course of becoming more sustainable due to the different climate zones and weather conditions. Hong Kong for example struggles with growing energy consumption costs caused by their chillers, which are needed for the air conditioning systems. In Vienna, a similar problem arises when it comes to heaters, which are especially needed during cold winter months. While the average hotel in Vienna does not possess air conditioners, most hotels in Hong Kong do not have heaters. However, some hotels in Vienna, mainly newly build ones, have installed solar panels on their roofs. In Hong Kong, most of the hotels are located in skyscrapers, which do not have enough roof surface space to build sufficient solar systems. The lack of space is the only argument that hinders hotel constructors to install solar panels in Hong Kong, even though they have enough hours of sunshine every day. In Hong Kong, the Novotel Nathan Road Kowloon is a pioneer in sustainability, whereas in Vienna it is the zero energy balanced Hotel Stadthalle. However, there is no comparable hotel in Hong Kong that is able to keep up with the state-of-the-art sustainability of Hotel Stadthalle.

All green initiatives and programs would not work efficiently if employees were not involved in the sustainable development process. Therefore, all interviewed hotels see great importance in the training of employees on energy and water saving, waste handling and pollution issues.

All hotels answered the question about the real drive behind sustainable development sincerely by stating that the main reason is to decrease costs. According to Hyatt Hong Kong, money is always an issue when it comes to implementing new sustainable fittings; therefore new projects need to pay back for themselves. The preservation of the environment as an argument to undergo a costly and time-consuming sustainable development is usually not sufficient.

Room prices were not affected in any hotels by the implementation of sustainable fittings. Almost all interviewed hotels in Hong Kong aim to not only save costs, but also to gain competitive advantage through green marketing initiatives. That is the reason why they all provide information on their sustainable initiatives on their websites The Langham Group and some other hotels in Hong Kong further promote sustainability through high technology items, like iPad, phones or screens in the guestrooms that display information on the hotel's green initiatives. In Vienna, however, all interviewed hotels, except for the Hotel Stadthalle, do not especially promote their environmental programs, as they believe that most guests already take being green for granted. The general manager of Hotel Imperial and the PR manager of Sofitel, both say that sustainability does not constitute a marketing advantage to attract customers; it can only pose a disadvantage if a hotel does not include sustainability in its operations. This is why many Viennese hotels do not emphasize sustainable initiatives on their websites.

Sustainable marketing initiatives should be primarily targeted towards business travellers, as all interviewed hotels are convinced that business and corporate travellers have the highest demand for sustainability. Most of the hotel executives interviewed in both Vienna and Hong Kong also added that the customer's origin and customs play a large role in how they deal with sustainability issues. According to Disney Land Resorts Hong Kong, Europeans are very interested in sustainability but Chinese are less so. Mr. Christandl claims that some guests, especially those from the Golf Region, are often not interested in sustainability. Ms. Reitterer, owner of Hotel Stadthalle, also states that Arabic travelers are not very concerned with saving energy. However, Ms. Reitterer did note that, compared to Austrians, Arabic guests are very prudent with their water consumption.

All interviewed hotels claim that the governments in both cities, Vienna and Hong Kong, are facing challenges and unsolved problems in waste handling and recycling. Vienna's governmentally owned waste disposal company is not able to keep the waste, which has already been separated by hotels, separated in the end. In Hong Kong there is no recycling plant at a governmental level, which is the reason why hotels pay companies to ship all recyclable material to China for processing. 25hours Hotel in Vienna and a lot of hotels in Hong Kong claim that the government should

find better ways to recycle or even reuse food leftovers. The manager of Hyatt Hong Kong explained that there are 3300 tons of food waste per day in Hong Kong and 200 tons could be easily reused to help people in need, which is still feasible at this moment in time. All in all, the hotel managers in Hong Kong perceive that the HKSAR government does not set satisfactory regulations for an overall green development. Most regulations are on a voluntary basis, as the government tries to maintain a free economy approach to attract foreign companies to invest in Hong Kong. In Vienna it is the other way around, the government sets too narrow rules and restrictions. Furthermore, according to Ms. Reitterer, the old regulations and laws need to be updated in order to achieve an overall nationwide sustainable development.

After analysing, summarizing and comparing the data gained through all interviews conducted in Hong Kong and Vienna, it became clear that there are some differences in sustainable attitudes between the two cities. This can be seen especially in the way hotels promote their green initiatives. In Hong Kong they are more likely to pride themselves with green practices than in Vienna, where it is taken for granted to show environmental and social responsibility.

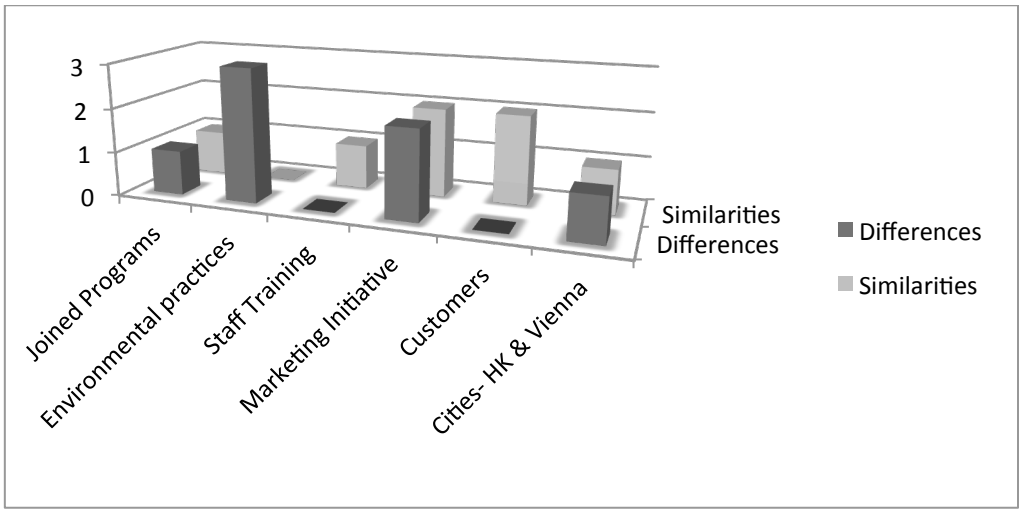


Figure 8 - Differences and Similarities between hotels in Hong Kong and Vienna

However, through the in-depth interviews no significant results are found that indicate a strong cultural dependence in a hotels green attitude.

In figure 8 it becomes visible that there are seven main differences between the two cities in the categories: Joined Programs, Environmental Practices, Marketing and

Government, but also the same number of similarities. Therefore, only broad and precautious conclusions about the findings can be made.

Hong Kong was indeed slower than Austria in terms of adapting a sustainable path. Nevertheless, the sustainable movement has taken off in Hong Kong, and it is likely that they will soon equal or even outperform the Austrian hospitality industry through continually introducing new green technologies. This development is reinforced by worldwide criticism of China's polluting industries, which is a viable explanation of why Hong Kong is more enthusiastic than Austria about their green initiatives. They are just more often asked for it.

5.1.4 Limitations of This Study and Further Research

Qualitative research has a few undeniable disadvantages that have to be taken into account when conducting in-depth expert interviews (Marshall & Rossman, 2010). In this study a few limitations have to be outlined, triggered by the special characteristic of qualitative research techniques.

First of all, it has to be mentioned that due to a lack of financial support, two students were responsible for conducting the expert interviews instead of qualified researchers. Therefore, some question may have been posed in the wrong way, like for example including personal opinions.

In addition to the limitation caused by insufficient monetary resources, it further had to deal with cut backs in the choice of appropriate experts who were willing to participate in interviews regarding green issues. In Hong Kong it appeared to be easy to get appointments with experts in the hotel industry. Thus, it was expected that in Vienna it would be the same. However, in Vienna, much more effort, time and energy were needed to get the chance to record interviews. Therefore, it was decided to conduct only four interviews in Vienna, although six interviews were given in Hong Kong.

Moreover, the probability of respondent's errors within the qualitative research study has to be taken into account. These errors refer to the dishonest answers of respondents, who tend to constantly promote their business, independent of the

research topic at hand, aiming to always be perceived as an industry role model (Weisberg, 2005). Hotel experts, who are pretending to be very sustainable and seriously care about the environment, could have caused a respondent's error in this study.

Within this study the attempt was made to interview hotel managers with diverse attitudes toward green issues. Unfortunately, the selection area of available hotel experts was limited by the low response rate of suitable interview partners. Hence, for further research in the field of sustainability in the hotel industry, it would be more beneficial to create sup-sample groups of experts with different levels of "green" awareness, in order to set the scene for different opinions. This could help in discovering those segments of the hotel industry that are more open and faster in adapting sustainable hotel practices than others.

5.2 Quantitative Research

Quantitative research is based on the collection of numerical data and aims to determine relationships between variables by means of statistical techniques. It is used to test hypotheses and helps, if done properly and with a sufficient amount of data, to explain phenomena and to draw conclusions from a specific dataset to an entire population (Murray Thomas, 2003; Balnaves & Caputi, 2001, Muijs, 2011). In quantitative research studies, hypotheses are defined in a first step. Once these are established, a questionnaire is designed taking general rules to increase the response rate, the response quality and the response accuracy into consideration. A precice description of these steps can be found in various existing literature (Brace, 2008; Schmidt & Hollensen, 2006; Hair et al., 2007; Marshall & Rossman, 2010; Patton, 2002).

5.2.1 Hypotheses

Based on the results of the qualitative research (see 5.1.2), hypotheses were established, which were verified or falsified in a further step through the use of quantitative research methods. The most significant hypotheses for this research study are the following:

1. Hotel room prices have the strongest influence on consumer's buying decisions.
2. A hotel's sustainable initiative has a positive impact on consumer booking decisions.
3. Hotel customers believe that the main reason for hotels to become sustainable is the reduction of operating costs.

In the next chapter the two methods used for testing these hypotheses are described.

5.2.2 Survey

5.2.2.1 Questionnaire Design

A questionnaire needs to be carefully designed to facilitate thorough coding and analysis and to insure that answers produce valuable data sets (Brace, 2008). The main distribution tool used for this quantitative research study was the Internet, whereby the link to the online questionnaire was sent via emails and through an

especially created Facebook group. These methods were selected because a wide range of people in various geographical areas can be reached. Also, it allows data to be returned faster and it is less expensive than other survey methods such as telephone, mail or face to face. Furthermore, the responses were gathered in electronic form and automatically entered into the statistical software, SPSS. In order to enable the use of suitable software for the research analysis procedure, closed questions were used exclusively (Schmidt & Hollensen, 2006). The questionnaire was divided into the following five broad sections:

1. Travel Behavior
2. Conjoint Analysis
3. Attitude towards sustainability and green hotels
4. New Ecological Paradigm (NEP)
5. Demographics

The online questionnaire was designed to start with a short introduction, informing the respondents about the purpose of the questionnaire, the general topic and the approximate duration for completion. Thereafter the previous travel behavior was diagnosed with the help of general questions concerning purpose, duration, accommodation, companion and money spent during a trip. In a further question self-perceived booking behavior was identified with a simple question asking what the respondent first looks at when booking a hotel with the response options: price, location, environmental friendliness, reputation and consumer reviews or star rating. However, this question was only used to discover what respondents believe is important for them when booking a hotel. In order to test these received answers, a conjoint analysis was established in a further step.

„Conjoint analysis has become one of today's most widely used marketing research tools. It goes beyond simple surveys, providing a more realistic approach to understanding customers attitudes, opinions, and behaviors." (Orme, 2009, p. 7)

A conjoint analysis provides the possibility for researchers to discover different levels of utility values a consumer attaches to the attributes of given objects during a buying decision process. Participants of a conjoint analysis are asked to select one hypothetical product or service of a given choice set. All possible products or services are described by specific profiles that consist of the same predetermined key characteristics but have systematic differences in their strengths. In the end of

the study the researcher receives data about the utility values of each characteristic within the different profiles. The characteristics of the most chosen and most preferred product profiles have the highest customer utility value and therefore have high influence on a consumer's buying decision (Parasuraman, Grewal, & Krishnan, 2006).

Generally speaking a conjoint analysis has five main functions:

1) It is a measurement technique of buying tradeoffs and product's attribute values.

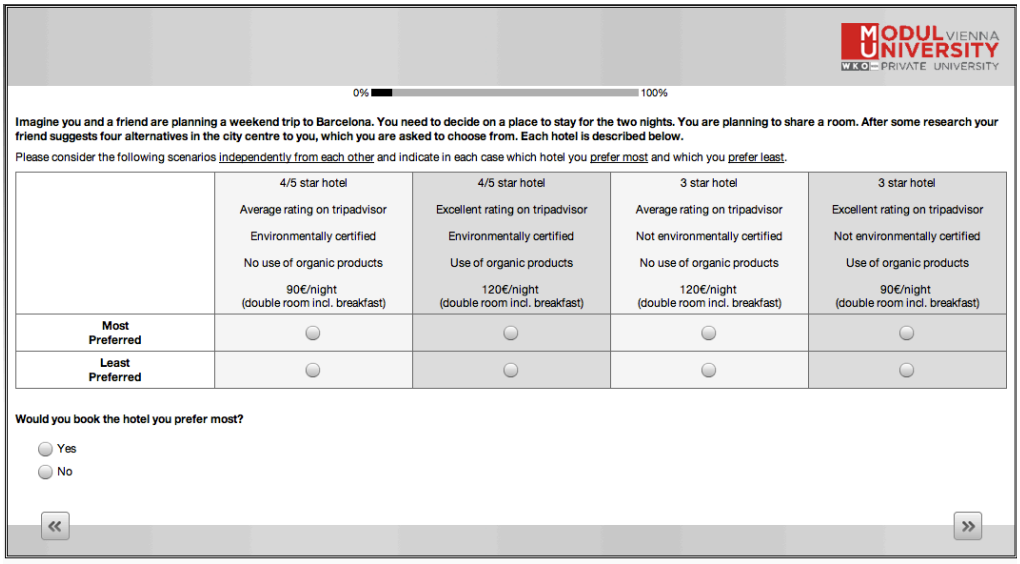
2) It is an analytical technique that tries to predict consumer reactions to new products or services.

3) It is a segmentation technique for identifying and forming consumer groups with similar values.

4) It is a simulation technique for gathering new product or service ideas in a competitive market.

5) It is an optimization technique for discovering product or service profiles that maximize a specific outcome measure, like for example return on investment or sales figure shares (Wierenga, 2008, pp. 26-27).

Taking this theory into account, the designed questionnaire asked respondents to put themselves in a booking scenario by asking which hotel out of four possibilities they would choose for a weekend trip to Barcelona. Each option had five characteristics including the star category, the overall rating on TripAdvisor, the possession of environmental certifications, the use of organic products and the daily room price. Respondents were then asked to choose one of the four options as a most preferred hotel, and another one as a least preferred hotel (see figure 9). In the end respondents were also asked whether or not they would book the hotel, which they have ranked as most preferred. This procedure was repeated fourteen times in order to receive meaningful results.



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Imagine you and a friend are planning a weekend trip to Barcelona. You need to decide on a place to stay for the two nights. You are planning to share a room. After some research your friend suggests four alternatives in the city centre to you, which you are asked to choose from. Each hotel is described below.

Please consider the following scenarios independently from each other and indicate in each case which hotel you prefer most and which you prefer least.

	4/5 star hotel Average rating on tripadvisor Environmentally certified No use of organic products 90€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 120€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 120€/night (double room incl. breakfast)	3 star hotel Excellent rating on tripadvisor Not environmentally certified Use of organic products 90€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

« »

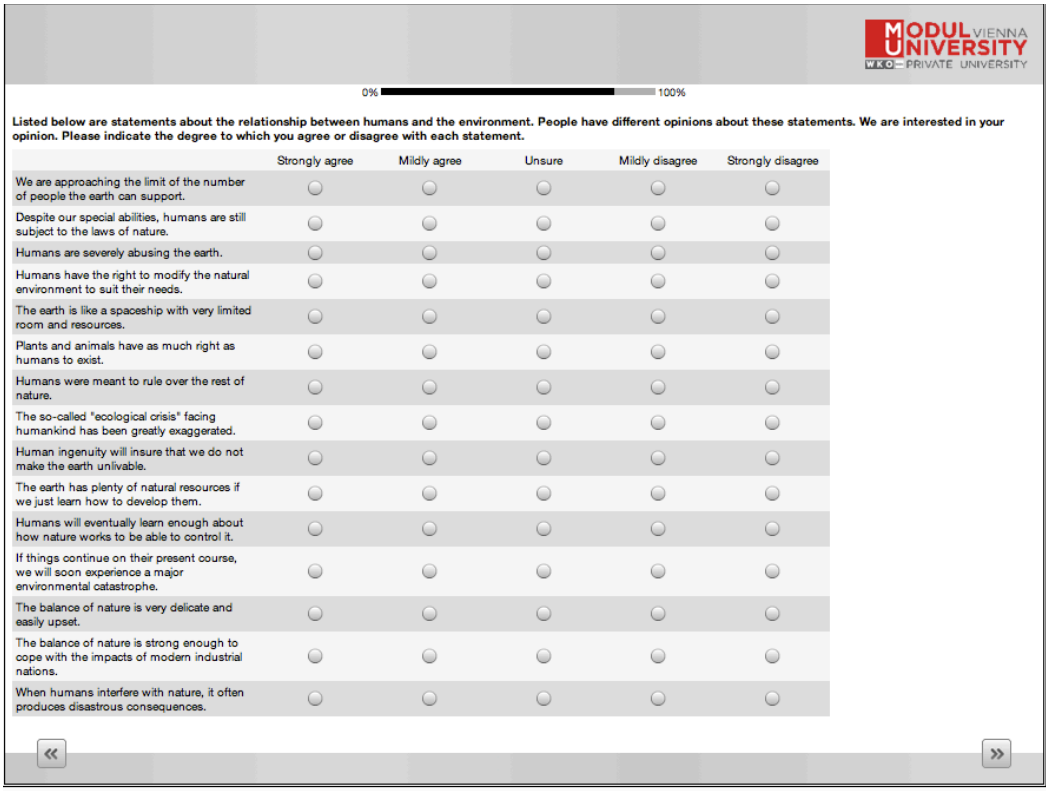
Figure 9 - Conjoint Analysis in the Questionnaire

After the general travel and booking behavior section including the conjoint analysis has been completed, a more sustainability-focused section started, with questions concerning the benefits of a green hotel for both the respondent (protect environment, be more socially responsible, eat fresh and healthy foods, have reduced prices, etc.) as well as the hotels itself (to cut costs, marketing, certificate, government regulations, etc.).

The next section was concentrating on the social aspect of sustainability and whether or not respondents think that being sustainable is the right thing to do because society asks for it. For this, questions were asked such as if family and friends think that the respondent should stay at a green hotel when travelling.

This study also adopted existing and already widely tested questioning models such as a revised New Ecological Paradigm Scale and other questions from already conducted scientific studies (Dunlap, Van Liere, Mertig, & Emmet Jones, 2000; Han, Hsu, & Sheu, 2010; Robinot & Giannelloni, 2010). The New Environmental Paradigm (NEP) Scale by Dunlap and Van Liere (1978) is a well-known tool for measuring proenvironmental orientation. It is mainly focusing "on beliefs about humanity's ability to upset the balance of nature, the existence of limits to growth for human societies, and humanity's right to rule over the rest of nature." (Dunlap et al., 2000, p.427) The questions used in the questionnaire are shown in figure 10 below, which

had the purpose of investigating the ecological consciousness of the respondents and their perception of environmental problems.



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Listed below are statements about the relationship between humans and the environment. People have different opinions about these statements. We are interested in your opinion. Please indicate the degree to which you agree or disagree with each statement.

	Strongly agree	Mildly agree	Unsure	Mildly disagree	Strongly disagree
We are approaching the limit of the number of people the earth can support.	○	○	○	○	○
Despite our special abilities, humans are still subject to the laws of nature.	○	○	○	○	○
Humans are severely abusing the earth.	○	○	○	○	○
Humans have the right to modify the natural environment to suit their needs.	○	○	○	○	○
The earth is like a spaceship with very limited room and resources.	○	○	○	○	○
Plants and animals have as much right as humans to exist.	○	○	○	○	○
Humans were meant to rule over the rest of nature.	○	○	○	○	○
The so-called "ecological crisis" facing humankind has been greatly exaggerated.	○	○	○	○	○
Human ingenuity will insure that we do not make the earth unlivable.	○	○	○	○	○
The earth has plenty of natural resources if we just learn how to develop them.	○	○	○	○	○
Humans will eventually learn enough about how nature works to be able to control it.	○	○	○	○	○
If things continue on their present course, we will soon experience a major environmental catastrophe.	○	○	○	○	○
The balance of nature is very delicate and easily upset.	○	○	○	○	○
The balance of nature is strong enough to cope with the impacts of modern industrial nations.	○	○	○	○	○
When humans interfere with nature, it often produces disastrous consequences.	○	○	○	○	○

Figure 10 - New Ecological Paradigm Questions (Dunlap et al., 2000)

After the NEP section has been filled out, the questionnaire concluded with some demographic questions and thanked the respondents for their participation. The complete questionnaire can be found in appendix 4.

A well-designed questionnaire is pivotal for receiving meaningful results. However, this must be combined with a meaningful and appropriate selection of candidates, without which a survey cannot succeed. This selection process is described in the next subchapter.

5.2.2.2 Selection of Candidates

Once a method for collecting data is chosen, a sample, which best represents the target population, needs to be defined. According to Hair et al. (2007), a sample consists of target population elements, which are actually available to be used in the research study. The goal is to select an appropriate sample, which allows you to

generalize gathered information from the sample to the target population as a whole. This allows us to make inferences and judgments about a target population as a whole from a sample (Hair et al., 2007; Schmidt & Hollensen, 2006).

In this study the target population is broadly defined as this quantitative research was directed towards any group of people of all age groups, education, gender, cultural and ethnic background, income, profession, travel frequency and purpose. This means that the study group was representing the general traveling population. However, the sample was constricted in a way to only include people who have taken a trip for leisure purposes in the past two years. For this purpose, a skip-logic was incorporated in the beginning of the questionnaire, which led unqualified participants immediately to the end of the questionnaire. However, the social networking platform Facebook, which was used for distribution, is largely dominated by younger generations. This resulted in the actual sample being biased, as only a few respondents were over the age of 50. The online distribution was a form of convenience sampling, because people were contacted that were easily accessible to the researchers. This is significant because it implies non-probability sampling, meaning that some elements of the target population are automatically not considered in the sampling process. For example, people that do not use the Internet frequently are largely not accounted for and their absence can lead to a lack of generalizability (Schmidt & Hollensen, 2006).

Once the sample was selected and contacted, the survey was finally conducted. This process is described in detail in the next subchapter.

5.2.2.3 Survey Process

The quantitative survey was conducted, as aforementioned, by means of an online questionnaire. People accessed this online questionnaire via a link and then had to click from one page to another with the help of a next button. The survey was carried out in 2 months, precisely between December 16, 2011 and February 16, 2012. After the surveying period was completed, the response rates and the sample profiles were analyzed, which are described in the next subchapter.

5.2.2.4 Response Rate and Sample Profile

The response rate, also known as the percentage return rate, is of importance for a study's reliability as it describes how many representatives of a predefined sample have actually participated (Babbie, 2010). In this study, around 1740 people received access to the questionnaire via email or a Facebook group, which has been especially created for this project. Out of those recipients, 510 people clicked on the given link. As the first part of the questionnaire was very repetitive, a high number of people dropped the questionnaire during the completing process. Altogether 230 people have completed the entire questionnaire, which corresponds to an achieved response rate of 13.2%, out of which 145 were female and 85 were male respondents. A low response rate may lead to a non-response bias, meaning that people from the sample who have not responded to the questionnaire are very likely to have similar attributes which may be significant for the study but are thus, not included in the study (Babbie, 2010).

The average respondent needed 1507.77 seconds, which corresponds to about 25 minutes. Respondents who needed less than 6 minutes were excluded from the study, as they were not seen as reliable. Checking for duplicate IP addresses further proved the reliability of respondents. Out of 230 surveys completed, 222 different IP addresses were used.

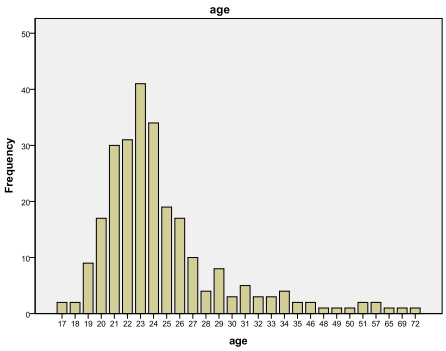

Figure 11 – Age distribution of the sample

The respondent's ages ranged from 17 to 72 years, whereby 68.8% of respondents were between 20 and 25 years old (see figure 11). Almost 50% of respondents had a monthly discretionary income ranging from 0 to 50€ and only 3% had more than 2000€ available per month after all regular living expenses have been paid.

Gender:		**Monthly Discretionary Income:**	
Male	37%	0 - 500 €	44.5%
Female	63%	501 - 1000 €	27.7%
		1001 - 1500 €	17.2%
Age:		1501 - 2000 €	5.9%
Average	25	More than 2000 €	4.7%
Maximum	72		
Minimum	17	**Occupation:**	
		Studying / Training	58.2%
Highest Completed Education:		Employed	34.4%
Primary School	5.9%	Self-employed	3.5%
Secondary School / High School	51.6%	Not employed	2.7%
University / College Degree	42.5%	Retired	1.2%

Table 4 – Sample profile

When it comes to the occupation of the respondents the data shows that 60% were studying/training, 33.5% were employed and 9% were retired (see table 4).

Furthermore, 43 % had a completed university or college degree. The use of the Internet as a distribution tool for the questionnaire facilitated reaching respondents from 35 different countries around the world. Nevertheless, Austrians still formed a majority with 60% (see figure 12). For more information on the respondent's profiles, please refer to appendix 5. A.

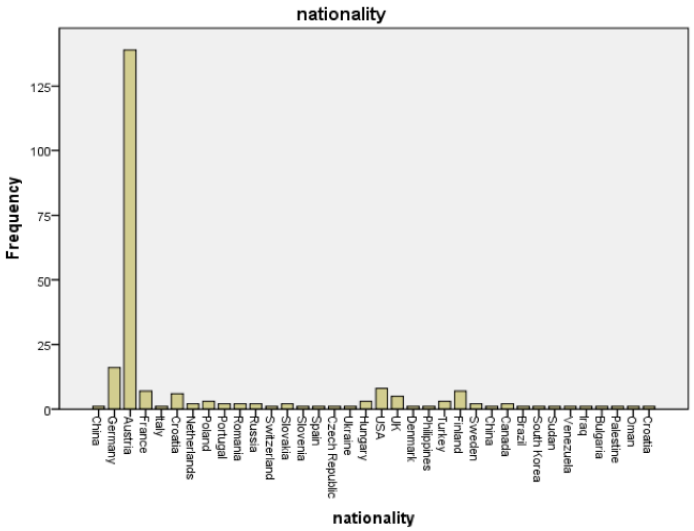

Figure 12 - Chart of different nationalities participating in the study

41.3% of respondents listed hotels as their preferred accommodation during their holidays, followed by staying with friends/relatives and staying at hostels. In regard to travel expenditure, 57% of respondents are spending between 0-50€, which is similar to the spending on activities with 55.7%. Most spending during holidays was on transportation, with only 19.1% spending between 0-50€ and 27.4% spending more than 150€ (see table 5). For more detail on the respondent's choice of accommodation and expenditure, please refer to appendix 5.B.

Preferred accommodation when travelling		**Expenditure:**			
Hotel	41.3%		**Accommodation**	**Activities**	**Transportation**
Hostel	13.9%	0-50€	57.0%	55.7%	19.1%
B&B	10.4%	51-100€	33.5%	36.5%	30.0%
Rented apartment/house	11.7%	101-150€	6.1%	5.7%	23.5%
Camp site	3.5%	151-200€	3.5%	0.9%	11.3%
Visiting friends/relatives	17.8%	201-250	0.0%	0.9%	6.1%
Couch surfing	1.3%	> 250€	0.0%	0.4%	10%

Table 5 - Preferred accommodation and expenditure when travelling

5.2.3 Results

Surprisingly, the majority of people perceive the use of renewable energy sources as the main characteristic of a green hotel (88.7%), followed by green business operations (80.4%) and green materials used in the construction process (73.9%). Significantly less importance is attached to the hotel's possession of eco certificates (69.6%). This phenomenon could be explained by the fact that there are too many diverse certificates existing as sustainability measures for hotels, which are often seen as untrustworthy and are only rarely communicated. Renewable energy sources, however, are often widely communicated through media (e.g. Stadthalle) (see appendix 5.E).

When it comes to a hotel's reason for adopting sustainable strategies and operations, 81.7% agree that those efforts are made because of a hotel's green attitude. Yet surprisingly, only 29.1% believe that cutting costs is the primary motivation (see figure 13). This falsifies the previously made assumption that the reduction of operating costs is perceived as the primary reason (see hypotheses 3). For more detailed tables, please refer to appendix 5.F.

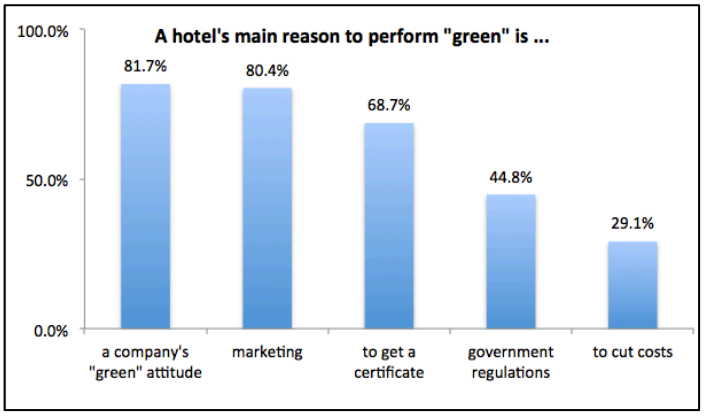

Figure 13 - Perceived reasons for hotels to become sustainable

In response to the question of what a stay at a green hotel enables their guests, the majority believe that it allows guests to eat fresh and healthy foods, be more socially responsible and protect the environment. Yet, the majority did not believe that green hotels have reduced prices. Respondents even perceived green hotels as expensive (67.8%) and that a lot of time and effort is needed to find green hotels (67%). For more detailed tables, please refer to appendix 5.G and 5.I.

Most respondents (48.4%) are not seeing themselves as being influenced by their families, friends or colleagues in the decision to stay at a green hotel. 89.6% of

respondents say that they would participate in sustainable practices recommended by hotels they are staying in (e.g. reusing towels) (see appendix 5.H).

The need for hotel's to become more environmentally friendly is emphasized by the fact that 87.7% of respondents agree that hotels should support the preservation of the environment. 50% of respondents believed that hotels are essentially contributing to the negative impacts on the environment, while 39.1% remained neutral (see appendix 5.J).

5.2.3.1 New Ecological Paradigm (NEP)

In order to retrieve information about the participant's general perception of environmental problems, the answers to the aforementioned New Ecological Paradigm Scale (NEP) is analyzed (see figure 6).

This analysis shows that 86.9% of respondents think that humans are severely abusing the earth and 72.2% believed that this abuse will lead to disastrous consequences. Also, a majority believe that despite our special abilities, humans are still subject to the laws of nature (87.4%). Further, 73.9% believe that if humankind continues on their present course, we will soon experience a major environmental catastrophe. Only a minority believes that the balance of nature is strong enough to cope with the impacts of modern industrial nations (16.5%) or that the so-called "ecological crisis" facing humankind has been greatly exaggerated (20%). Similarly, only 21.4% agree that humans will eventually learn enough about how nature works to be able to control it, 20% say that humans have the right to modify the natural environment to suit their needs and 13.5% go even further by believing that humans were meant to rule over the rest of nature. However, a rather big percentage of 54.3% agrees that the earth has plenty of natural resources, but we must learn to take advantage of them.

On the contrary, 55.7% believe that we are approaching the limit of the number of people the earth can support and another 86.9% agree that humans are severely abusing the earth (see table 6). This clearly shows a trend towards sustainability and that the awareness of the need for sustainable measures is already high and must be taken seriously (Dunlap et al., 2000). For a more detailed NEP analysis, please refer to appendix 5.K.

Do you agree or disagree that...	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	MEAN 0.0 1.0 2.0 3.0 4.0 5.0
1. We are approaching the limit of the number of people the earth can support.	23.5%	32.2%	23.5%	15.2%	5.7%	
2. Humans have the right to modify the natural environment to suit their needs.	5.2%	14.8%	23.5%	33.0%	23.5%	
3. When humans interfere with nature it often produces disastrous consequences.	35.2%	37.0%	20.0%	7.0%	0.9%	
4. Human ingenuity will insure that we do not make the earth unliveable.	7.8%	22.6%	37.8%	20.0%	11.7%	
5. Humans are severely abusing the environment.	52.6%	34.3%	10.0%	1.7%	1.3%	
6. The earth has plenty of natural resources if we just learn how to develop them.	26.5%	27.8%	26.5%	13.5%	5.7%	
7. Plants and animals have as much right as humans to exist.	53.0%	28.7%	10.9%	6.1%	1.3%	
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations.	5.2%	11.3%	14.3%	30.4%	38.7%	
9. Despite our special abilities humans are still subject to the laws of nature.	57.0%	30.4%	10.9%	1.3%	0.4%	
10. The so-called "ecological crisis" facing humankind has been greatly exaggerated.	6.1%	13.9%	24.8%	30.8%	24.3%	
11. The earth is like a spaceship with very limited room and resources.	37.4%	34.3%	15.7%	8.3%	4.3%	
12. Humans were meant to rule over the rest of nature.	3.5%	10.0%	18.3%	23.0%	45.2%	
13. The balance of nature is very delicate and easily upset.	39.1%	34.8%	16.5%	7.4%	2.2%	
14. Humans will eventually learn enough about how nature works to be able to control it.	5.7%	15.7%	24.8%	27.4%	26.5%	
15. If things continue on their present course, we will soon experience a major environmental catastrophe.	47.8%	26.1%	18.7%	4.8%	2.6%	

Table 6 – New Ecological Paradigm Frequency Distribution (Dunlap et al., 2000)

1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, 5 = strongly disagree

Although the above-mentioned results give a good overview of how consumers perceive sustainability, the central question, if a hotel's sustainability plays a pivotal role in consumer booking choices, has not yet been answered. This issue will be analyzed in the following subchapter by means of a general hotel booking question and the more complex conjoint analysis.

5.2.3.2 Consumer Behavior in a Choice Set – Conjoint Analysis

In order to test the aforementioned hypothesis that hotel room prices have the strongest influence on consumer's buying decisions, respondents were first asked to indicate, which factors they look at when booking a hotel: price, location, environmental friendliness, reputation and consumer reviews or star rating. The results below (see figure 14 and 15) show, as hypothesized, that price was always indicated as a pivotal factor in booking decisions, which is followed by a hotel's location, its reputation and consumer reviews and its star rating. Environmental friendliness was rarely chosen as an influence factor among respondents and most people adopted a neutral position (see appendix 5.C and 5.D).

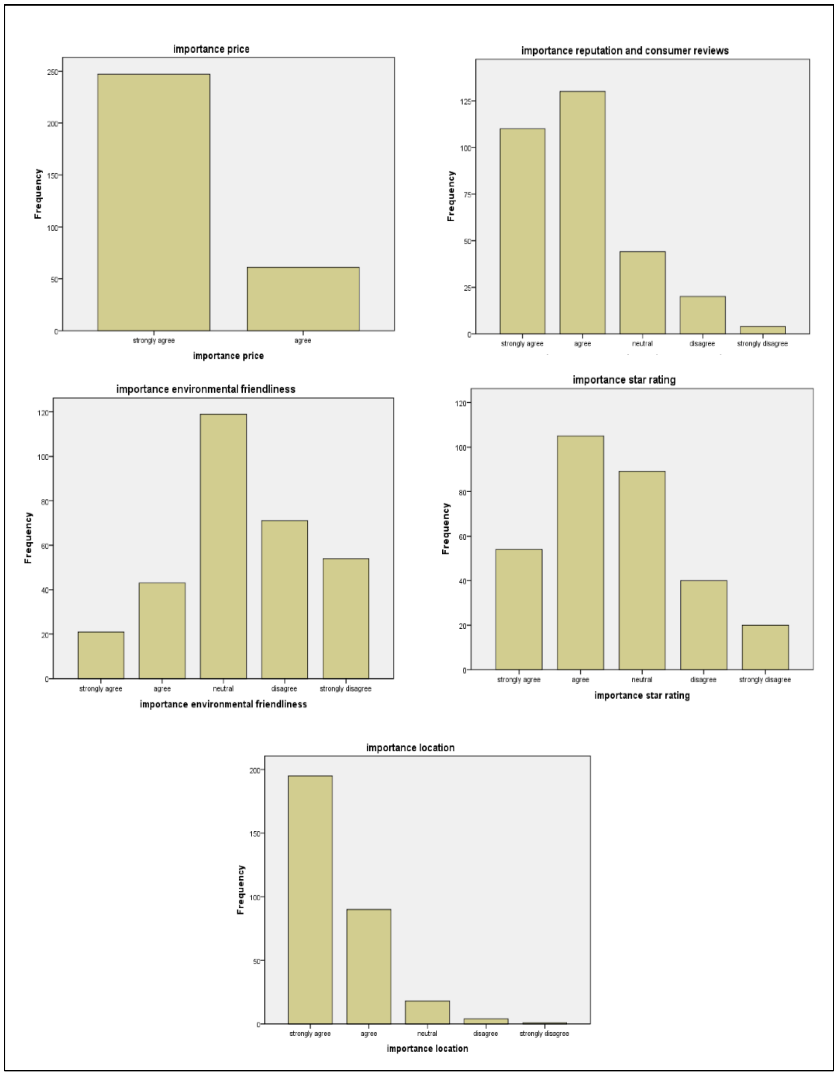

Figure 14 – Frequencies of influencing factors on booking behavior

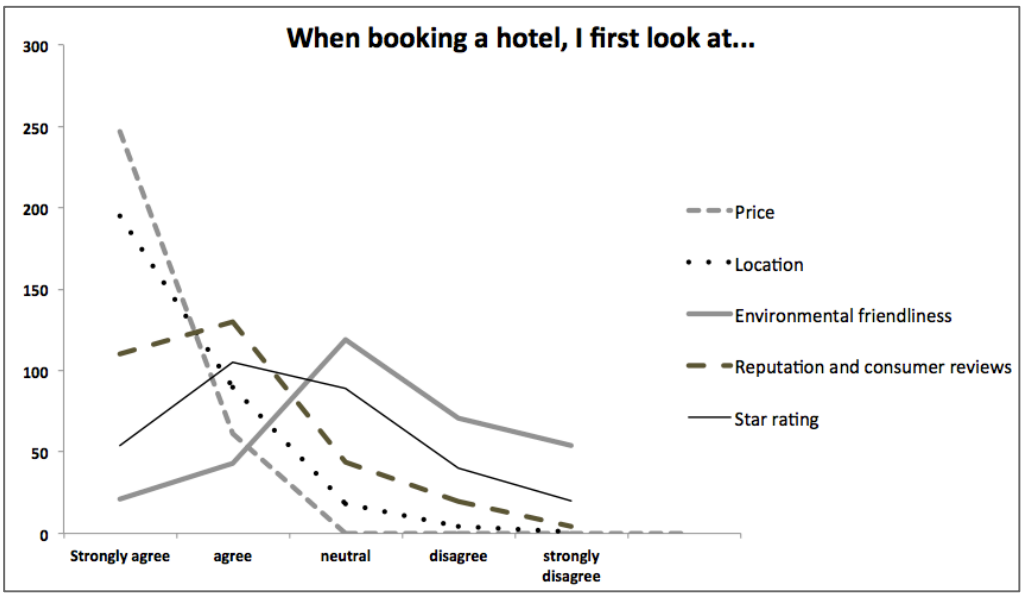

Figure 15 - 5 Factors perceived to be influencing consumer buying behavior

This result verifies the hypothesis that hotel room prices have the strongest influence on consumer's buying decisions. However, these results are not entirely significant, as consumer beliefs of how they behave and what they actually look at in a booking decision may vary.

This is the reason why a conjoint analysis has been carried out, which is known to be a more accurate tool for assessing consumer's behaviors and attitudes.

As aforementioned (see chapter 5.2.2.1), for the conjoint analysis the five considered characteristics within a hotel's profile included the hotel's star category, the overall rating on TripAdvisor, the possession of environmental certifications, the use of organic products and the daily room price.

These five attributes were shaped to sixteen different hotel profiles, forming the survey choice set. The description of the sixteen choice options can be seen below (figure 16).

Hotel	Stars	Rating on TripAdvisor	Environmental Certification	Organic products	Price / night (double room incl. breakfast)	Rated best	Rated worst	
1	3 *	excellent	not certified	used	90€	676	30	
2	3 *	excellent	certified	not used	150€	143	154	
3	3 *	average	not certified	not used	120€	23	317	
4	3 *	average	certified	used	180€	25	674	Worst rated
5	4/5 *	excellent	not certified	not used	180€	51	555	
6	4/5 *	excellent	certified	used	120€	518	27	
7	4/5 *	average	not certified	used	150€	84	280	
8	4/5 *	average	certified	not used	90€	546	29	
9	4/5 *	average	certified	not used	180€	29	593	
10	4/5 *	average	not certified	used	120€	150	150	
11	4/5 *	excellent	certified	used	150€	310	48	
12	4/5 *	excellent	not certified	not used	90€	706	48	Best rated
13	3 *	average	certified	used	90€	563	71	
14	3 *	average	not certified	not used	150€	35	484	
15	3 *	excellent	certified	not used	120€	282	101	
16	3 *	excellent	not certified	used	180€	31	611	

Figure 16 - 16 hotel profiles used for the conjoint analysis

In order to find out which of the given hotel profiles are chosen the most, a cross table is created by using the statistic software SPSS. The 16 hotel profiles are taken as the dependent variables and the best and worst ranks build the independent variables. The resulting cross tabulations can be found below (see table 7).

BWRank*Profile Cross tabulation

BW Rank	Profile																Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
best	676	143	23	25	51	518	84	546	29	150	310	706	563	35	282	31	4172
Betw.	325	734	697	338	432	483	658	465	432	762	690	300	429	524	662	413	8344
worst	30	154	317	674	555	27	280	29	593	150	48	48	71	484	101	611	4172
Total	1031	1031	1037	1037	1038	1028	1022	1040	1054	1062	1048	1054	1063	1043	1045	1055	16688

Table 7 - Frequency of hotel profiles being chosen

Table 7 indicates that hotel profile number 12 is chosen the most, by receiving the best rating 706 times. A four to five star category, an excellent TripAdvisor rating and a low price, but no green certification and no use of organic products characterize this hotel. All these figures lead to the interpretation that people are more likely to concentrate on factors that indicate better service and lower prices than on green factors.

This resulting assumption becomes more precise by checking the characteristics of the least chosen hotel profile, profile number 4. This profile is completely diverse to the best-rated hotel profile number 12. Hotel number 4, although it charges high room rates, only has an average star rating and an average rating on TripAdvisor. Suprisingly it is environmental certifications and makes use of organic products. These sustainable factors seem not strong enough to attract customers, who are scared off by the too high room prices compared to their average quality ratings. According to these results it may be concluded that the daily room price, the star- and the TripAdvisor- rating have the highest effect on a customer´s buying behavior. However, these cross tabulations cannot tell us if there is just one characteristic that is very powerful and therefore cancels out the positive and negative effects of the other characteristics. In order to get deeper insight a more precise analysis of the given data has to be carried out. This is done by computing five individual crosstabs, one for each characteristic and later checking their power and significance accordingly. For more detailed tables, please refer to appendix 5.L.

The first cross tabulation is computed for the characteristic “hotel star certification level” as the dependent variable, and best/worst rank as the independent variable (see table 8 and figure 17). From the figures in the crosstab and the bar chart below, it becomes clear that 4/5 star hotels (57.4%) are slightly more often chosen than 3 star hotels (42.6%). Through the chi-square test (see appendix 5), which compares statistical expected counts with actual figures; it is proven that this difference is based on highly significant results (Sig. = 0.000).

Crosstab

			BWRank		
			best	worst	Total
Stars	3*	Count	1778	2442	4220
		Expected Count	2110.0	2110.0	4220.0
		% within Stars	42.1%	57.9%	100.0%
		% within BWRank	42.6%	58.5%	50.6%
		Adjusted Residual	-14.5	14.5	
	4/5*	Count	2394	1730	4124
		Expected Count	2062.0	2062.0	4124.0
		% within Stars	58.1%	41.9%	100.0%
		% within BWRank	57.4%	41.5%	49.4%
		Adjusted Residual	14.5	-14.5	

Table 8 – Cross tabulation with dependent variable “Hotel Stars’

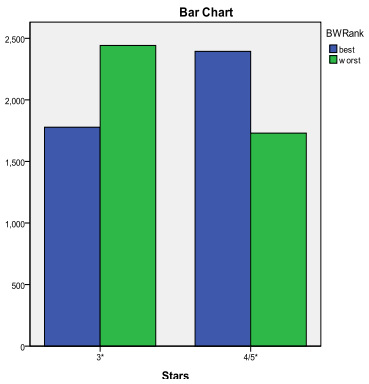

Figure 17 – Cross tabulation with dependent variable “Hotel Stars”

A crosstab is also created for the characteristic “hotel TripAdvisor rating” as the dependent variable, and the best/worst rank as the independent variable (see table 9 and figure 18). Survey participants could find either excellent or average rated hotels. From the figures in the crosstab and the bar chart below it becomes visible that excellent rated hotels (65.1%) are more often chosen than average rated hotels (34.9%). This is an even bigger percentage difference than in the hotel star characteristic, meaning that TripAdvisor rating seems to have more influence on a guest’s buying decision than a hotel star certification. Through the chi-square test (see appendix 5) it is proven that this difference is as well based on highly significant results (Sig. = 0.000).

Crosstab

			BWRank		
			best	worst	Total
Rating	Excellent rating	Count	271	1574	4291
		Expected Count	2145.5	2145.5	4291.0
		% within Rating	63.3%	36.7%	100.0%
		% within BWRank	65.1%	37.7%	51.4%
		Adjusted Residual	25.0	-25.0	
	Average rating	Count	1455	2598	4053
		Expected Count	2026.5	2026.5	4053.0
		% within Rating	35.9%	64.1%	100.0%
		% within BWRank	34.9%	62.3%	48.6%
		Adjusted Residual	-25.0	25.0	

Table 9 – Cross tabulation with dependent variable “Average Rating”

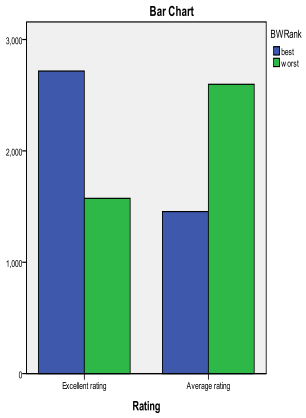

Figure 18 – Cross tabulation with dependent variable “Average Rating”

Another crosstab is carried out for the characteristic "hotel environment certification" as the dependent variable, and best/worst rank as the independent variable (see table 10 and figure 19). The figures in the crosstab and the bar chart below indicate that there is a moderate difference in how often certified hotels are chosen compared to not certified ones. Non-certified hotels are chosen 15.80% less often than certified ones. Therefore it can be said that an excellent hotel TripAdvisor rating seems to have more power on a customer´s buying decision than a green certification. Through the chi-square test (see appendix 5), it is proven that this difference is based on highly significant results (Sig. = 0.000).

Crosstab

		BWRank		
		best	worst	Total
not certified	Count	1756	2475	4231
	Expected Count	2115.5	2115.5	4231.0
	% within Certif	41.5%	58.5%	100.0%
	% within BWRank	42.1%	59.3%	50.7%
	Adjusted Residual	-15.7	15.7	
certified	Count	2416	1697	4113
	Expected Count	2056.5	2056.5	4113.0
	% within Certif	58.7%	41.3%	100.0%
	% within BWRank	57.9%	40.7%	49.3%
	Adjusted Residual	15.7	-15.7	

Table 10 – Cross tabulation with dependent variable "Eco-Certification"

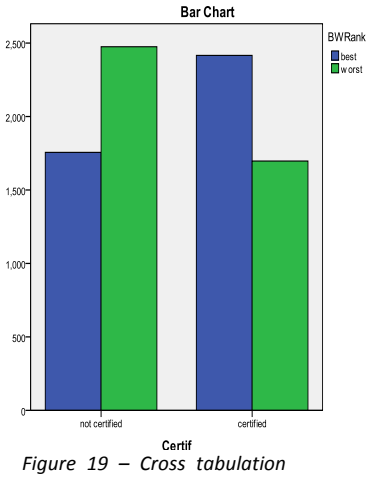

Figure 19 – Cross tabulation with dependent variable "Eco-Certification"

Furthermore, a crosstab is created for the characteristic “hotel´s use of organic products” as the dependent variable, and best/worst rank as the independent variable (see table 11 and figure 20). The figures of the below crosstab and bar chart, indicate that there is again a moderate difference between how often hotels are chosen that do not use any organic products compared to those who do. Hotels that use organic products are only 13.00% more often chosen than those hotels that do not offer organic products. Within the green characteristics of a hotel, customers seem to care less about organic products than about official environment certifications. Through the chi-square test (see appendix 5) it is proven that this difference is based on highly significant results (Sig. = 0.000).

Crosstab

		BWRank		
		best	worst	Total
organic	Count	2357	1891	4248
	Expected Count	2124.0	2124.0	4248.0
	% within Organic	55.5%	44.5%	100.0%
	% within BWRank	56.5%	45.3%	50.9%
	Adjusted Residual	10.2	-10.2	
not organic	Count	1815	2281	4096
	Expected Count	2048.0	2048.0	4096.0
	% within Organic	44.3%	55.7%	100.0%
	% within BWRank	43.5%	54.7%	49.1%
	Adjusted Residual	-10.2	10.2	

Table 11 – Cross tabulation with dependent variable “Organic Food”

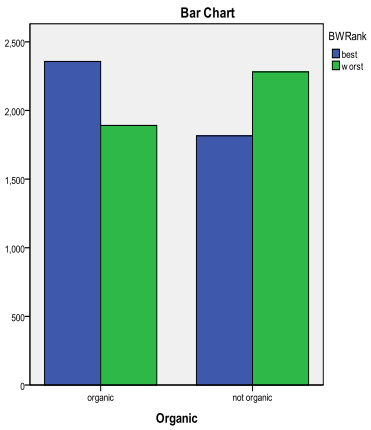

Figure 20 – Cross tabulation with dependent variable “Organic Food”

Once more a crosstab is computed for the characteristic “daily hotel room price” as the dependent variable, and best/worst rank as the independent variable (see table 12 and figure 21). Survey participants could find hotels that offer their rooms either for 90€, 120€, 150€ or 180€ per night. The figures in the crosstab and the bar chart below indicate that hotels with a daily room rate of 90€ have been considerably more often chosen than all other price categories. On average, in 60% of the 14 choice sets the respondents select the cheapest hotel. All in all it can be stated that the higher the room prices of a hotel the less likely it gets selected by the survey participants. However the biggest difference of selection percentage (of 36.4%) from

one room price to the next lower room price is between 90€ and 120€. As there is a significant negative relationship between room price and best-ranked hotels, the room price seems like the most important influence factor on a tourist's booking decision. Through the chi-square test (see appendix 5), it is again shown that this difference is based on highly significant results (Sig. = 0.000).

Crosstab

			BWRank		
			best	worst	Total
Price	90€	Count	2491	178	2669
		Expected Count	1334.5	1334.5	2669.0
		% within Price	93.3%	6.7%	100.0%
		% within BWRank	59.7%	4.3%	32.0%
		Adjusted Residual	54.3	-54.3	
	120€	Count	973	595	1568
		Expected Count	784.0	784.0	1568.0
		% within Price	62.1%	37.9%	100.0%
		% within BWRank	23.3%	14.3%	18.8%
		Adjusted Residual	10.6	-10.6	
	150€	Count	572	966	1538
		Expected Count	769.0	769.0	1538.0
		% within Price	37.2%	62.8%	100.0%
		% within BWRank	13.7%	23.2%	18.4%
		Adjusted Residual	-11.1	11.1	
	180€	Count	136	2433	2569
		Expected Count	1284.5	1284.5	2569.0
		% within Price	5.3%	94.7%	100.0%
		% within BWRank	3.3%	58.3%	30.8%
		Adjusted Residual	-54.5	54.5	

Table 12 - Cross tabulation with dependent variable "Room Price"

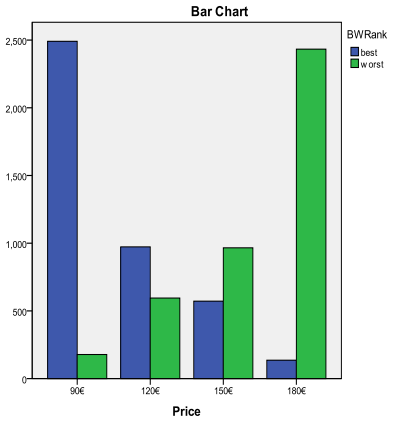

Figure 21 - Crosstab with dependent variable "Room Price"

All above-discussed crosstabs can give an idea of the possible power of the individual hotel characteristics on a customer´s final purchase decision. In order to see the differences in strength within all characteristics another statistical test is necessary to reliably compare the outcomes and test their significance. Therefore, a

linear regression of the five hotel characteristics as predictors/constants and the hotel´s best and worst rank as the dependent variable is computed.

In the first tables of interest "Model Summary" (see table 13) the R-value indicated a high percentage (73%) of correlation. Furthermore the R^2 value shows that 53.3% of the dependent variable (=best/worst hotel rank) can be explained by the predictors.

R	R Square	Adjusted R Square	Std. Error of the Estimate
.730[a]	.533	.533	.683

Table 13 - Model summary including R-value

The following table "ANOVA" gives the evidence that the multiple regression model predicts the dependent variable significantly (can be seen in the Sig. column in table 14). This means that the given model is significantly valuable enough to predict the outcome variable (=best/worst hotel rank). Furthermore, it is proven that the model at hand is very useful for this statistical test.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4451.349	5	890.270	1906.945	.000[a]
	Residual	3892.651	8338	.467		
	Total	8344.000	8343			

a. Predictors: (Constant), Price_dich, Organic, Certif_Twisted, Stars_Twisted, Rating

b. Dependent Variable: BWRank

Table 14 - ANOVA of Conjoint Analysis

In the next table "Coefficients" the details of each individual predictor is provided. It can be stated that all the constants are significantly related to the model (see Sig. column, below).

The standardized coefficients (see the Beta column in Table 15) are used to compare the relative strengths of the different predictors. In this table it can be seen that the constant "price" has the largest (.608) Beta coefficient and "organic" has the smallest (0.117). This means a one standard deviation increase in "price" leads to 0.608 standard deviation increase in the dependent variable of "Best/Worst Rank", if all the other variables are held constant. The B column helps to formulate the equation for the dependent variable "best/worst rank": B/WRank = -1.979+

.507+.235+.284+.421+1.216. Moreover, every predictor´s tolerance is > 0.1, as required. This again strengthens the trustworthiness of the data, as it measures the correlation between predictors. If the predictor variables would highly correlate with each other it would cause problems in judging the relative contribution of each constant. In this case the correlation is beneficially low. For more detailed tables, please refer to appendix 5.M.

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-1.979	.052		-37.734	.000		
Rating	.507	.016	.253	32.380	.000	.914	1.095
Organic	.235	.016	.117	15.083	.000	.924	1.083
Stars_Twisted	.284	.016	.142	18.213	.000	.923	1.084
Certif_Twisted	.421	.016	.210	26.999	.000	.922	1.085
Price_dich	1.216	.015	.608	80.698	.000	.986	1.014

Table 15 - Coefficient of each individual predictor

Through the analysis it can be stated that the linear regression model reliably indicates that price has significantly the strongest influence on a customer´s hotel booking decision, followed by TripAdvisor ratings, green certifications, star rating and last by the use of organic products with the weakest influence. This, however, verifies the hypothesis that hotel's sustainable initiatives have a positive impact on consumer booking decisions, especially when these initiatives are supported by green certifications, which show a stronger influence than star ratings.

5.2.4 Limitations of This Study and Further Research

Researchers that take a quantitative research approach are confronted with different and sometimes even bigger limitations than by carrying out qualitative research. According to Michael Quinn Patton, "There are no perfect evaluation designs, only more and less useful ones." (Patton, 2002, p. 229).

The first limitation of the research study at hand is caused by the selection of just one distribution channel. The Internet was the only medium used to distribute the questionnaire among potential tourists. This way of distributing information

automatically dismisses the main part of the older generations and people who are not used to check their mails on a regular basis. Although this limitation is obvious and known by researchers, for this study no hardcopies of the questionnaire are spread. This decision is made, due to the lack of financial support and to avoid being forced to manually convert handwritten information into useful data that can be processed by a computer based statistics program. Like foreseen, this causes same samples error. This could mean that the sampling approach at hand may not be representative for the entire population, as it mainly reflects the opinion of students (Weisberg, 2005). Hence, the predetermined hypothesis regarding the dependence between age and environmentally awareness, e.g. “the younger generation is keener about environmentally friendly practices”, couldn’t be tested with the generated data.

Moreover it was necessary to cope with a nonresponse error during the study. This bias is caused by people who are invited to take the survey, but actually do not participate (Weisberg, 2005). In order to minimize this kind of error, the questionnaire was posted on Facebook five times within a timeframe of 3 months. In the end around 40% of the people who received the access to the survey, filled in the entire questionnaire. This response rate was achieved mainly through interviewing people that have a private or professional relationship to the researcher.

For further research on the consumer’s attitude towards green practices and the influence on their buying behavior, it is recommended to work with a research sample that covers all age levels. This approach could help in determining current market trends and future developments of sustainable products and services.

6 Conclusion

There is evidence for a worldwide trend of hotels increasingly focusing on strategies for environmentally friendly and sustainable operations in the long term. However, strategies vary tremendously according to local conditions, e.g. hotels in Hong Kong and Vienna face completely different challenges in the course of their individual environmental practices due to the different climate zones, governmental regulations, space conditions and technical fittings opportunities. However, all hotels that participated in the in-depth interviews agree that the main drive behind a sustainable development is the decrease of operating costs. A trend towards receiving eco-certificates is identified, whereby most Hong Kong hotels join the "Earth Check" program and most Viennese hotels rely on national or self-established programs. A further difference is identified in the approach of promoting sustainability in both cities. Hotels in Hong Kong are trying to gain competitive advantage by providing detailed information on their sustainable initiatives for their customers, whereas hotels in Vienna do not necessarily consider sustainability as an explicit tool for attracting customers, but more importantly as a factor that customers already expect. Another significant difference, which has to be underlined, is the way national governments deal with green issues. Hong Kong is said to have too vague regulations, whereas Vienna is perceived as too strict, old-fashioned and narrow-minded. However, the in-depth interviews regarding a hotel's overall green attitude do not demonstrate any significant cultural dependence.

Concerning the quantitative research, the conjoint analysis shows clearly that price has the significantly strongest influence on a consumer's hotel booking decision. Additionally, this analysis further indicated that eco-certificates have already outperformed star ratings in terms of influencing booking decisions. This implies that hotels should indicate whether or not they have eco-certificates as this has become a weak, but yet decisive factor in the consumer's hotel choice. Consequently, a majority of respondents believe that hotels adopt sustainable strategies because of the hotel's green attitude. This is not surprising, but in contrast to the findings of the in-depth interviews. Only 29.1% believe that cutting costs is the primary motivation. Furthermore, a significant majority believes that hotels because of their contribution to the negative impacts on the environment are clearly obliged to support the

preservation of the environment, which speaks once more for the implementation of sustainable practices in hotels.

Furthermore, the results retrieved from the New Ecological Paradigm Scale indicate a high overall concern of the society about the environment, a high awareness that the environment needs to be protected, as resources are limited, and a high apprehension that humans are severely abusing the environment. This shows once again that consumers are increasingly valuing sustainable initiatives and a shift towards an ecological worldview is already occurring.

It can be concluded that the consumers' awareness of the need for "becoming green" is already very high. Unfortunately, the customers environmental concerns are still too low to compete with attractive low prices and do not have the power to positively effect their booking decision for green hotels. Nevertheless, companies should get proactive and start today to take sustainable measures in order to compete in an increasingly environmentally friendly market place of the future.

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Appendices

Appendix 1: Interview Guidelines

Sustainable Hotel Practices and its Influence on Consumer Buying Behavior

-A Cross-Country Comparison between Vienna and Hong Kong -

Susanne Klepsch & Julia Schneider

Pool of Questions for the Expert Interview

1. Are sustainable practices integrated in your business strategy? Why? Why not?
2. How is your hotel practicing sustainability? What kind of technical installations have your hotel implemented to save energy, water and other limited resources?
3. Do you think it is worth that hotels emphasize on sustainable working procedures?
4. Are you training your employees regarding sustainability practices?
5. What are your near future plans to improve your hotel's sustainability?

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6. Have you already received some certificates or other rewards for being an environment-friendly hotel?
7. Are you aiming to get certificates / eco labels?
8. Are you cooperating with non-governmental organizations that are working towards sustainability (e.g. donating part of the revenue to an organization)?
9. Do you think that the government will set some mandatory regulations for hotels in order to protect our environment?

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10. In your opinion, is there a relevant change in the attitude of Hong Kong's / Vienna's society regarding sustainability?
11. Do you think that customers are willing to pay more for sustainable hotels?
12. Have you experienced that customers are actively supporting environment-friendly hotel practices (e.g. leaving the towels on the towel rail)?
13. How are you promoting the sustainable aspect of your hotel in order to attract customers?

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14. Have you changed your room prices after the implementation of sustainability procedures?
15. Do you think that sustainability is an additional source of revenue?
16. Have you experienced that the costs of implementation have already been covered by the savings of resources (electricity, water,...)?

Appendix 2: Expert Interview Results – Hong Kong

For the qualitative research study numerous interviews have been conducted in order to receive the necessary background information for this thesis. The information retrieved is in detail described below.

Interviewee's List

Ms. Carmen Ng, Environmental Manager for **Langham Hotels International Group** (Wed, 20th April, 2011 at the corporate office: Office Tower, Langham Place, 8 Argyle Street, Mongkok, Tel: (852) 3552 3815, Fax: (852) 3552 3900, carmen.ng@langhamhotels.com)

Mr. Jor Fan, Environmental Management System Manager at **Langham Place Hotel** (Wed, 02.March, 2011, 555 Shanghai Street, Mongkok, Kowloon, Hong Kong, Tel: (852) 3552 3388, Fax: (852) 3552 3322, Jor.fan@langhamhotel.com, Hongkong.langhamplacehotels.com)

Mr. Patrick Wong, Director of Projects at **Intercontinental Grand Stanford** (Wed, 27.April, 2011, 70 Mody Road, Tsimshatsui East, Kowloon, Hong Kong, Tel: (852) 27215161 ext. 2578, Mobile: (852) 6305 6082, Fax: (852) 2315 2286, p.wong@grandstanford.com, www.hongkong.intercontinental.com)

Ms. Rita Poon, Hygiene Manager responsible for Green Initiatives at **Grand Hyatt** (1 Harbour Road, Hong Kong, Tel: (852) 2588 1234, Fax: (852) 2802 0677, hongkong.grand@hyatt.com)

Mr. Antonio Chan, Chief Engineer at **Hong Kong Disneyland Hotel** (Fri, 25.February, 2011, Penny's Bay/Lantau Island, Hong Kong, Tel: (852) 3550 3944, Fax: (852) 3550 3999, Antonio.chan@disney.com, www.hongkongdisneyland.com)

Shane Pateman, General Manager of **Novotel Nathan Road Kowloon** (Wed, 6.April, 2011, 348 Nathan Road, Kowloon Hong Kong, Tel: (852) 3965 8888, Direct Tel: (852) 3965 8881, Fax: (852) 3965 8833, Mobile: (852) 6389 8018, Shane.pateman@accor.com)

Joined Program

Hyatt, Novotel and Disney Land Resorts do not participate in the ISO program because of diverse reasons. Disney Land Resorts chief engineer stated that ISO has no clear guidance and vague regulations. Furthermore ISO is not perfectly suitable for Disney as this company includes 65 companies with around 10 offices each and it would be too complicated and expensive to make them all follow ISO regulations. Instead they have their own system and clear targets given by the World Disney Organisation. The Disney head office has established

a sustainability report, which provides guidelines and its aim is to reduce waste by 50 % and indirect greenhouse emissions by 10% by 2013. The Disney Land Companies get punished if their green aims are not achieved or they have to pay other people to do environmental preservation activities (planting trees, collecting waste) instead of themselves. However, the Disney Hotel Hong Kong got 100 different awards for different sustainable sectors (design, etc.) The same approach is followed by the Hyatt Hotel group, which as well has its own Hyatt Earth Program and provides a platform for all offices, through which it receives directives from the head office in Chicago.

Furthermore, Novotel Hong Kong is not a supporter of ISO as the management is convinced that ISO is more suitable for manufactures than for the hotel industry. ISO requires too much paperwork and this takes too much time, which could be better used for actively doing something good for the environment and society. This opinion is shared by the Intercontinental, which as well does not use ISO because the managers believes that the extensive paperwork it needs to comply with ISO is useless for solving environment problems. Moreover, ISO's overall popularity among hotels is not very high. Mr. Patrick Wong, Director of Projects at Intercontinental Grand Stanford, believes that guests do not choose a hotel because it has ISO14000. The Langham Group, however, believes that ISO is a good system but it is applied to all industries, whereas other certification schemes such as Earth Check is only tailor-made for tourism and therefore provides a better benchmark possibility. ISO only monitors processes, but it does not look at performances. The Langham Place Hotel believes in ISO and it has received ISO 14000 two years ago. Moreover the Hotel has a green team responsible for sustainability issues, of which Mr. Jor Fan is the supervisor. He is also responsible for the documentation of green developments within the hotel, in order to show quantitative improvements in form of facts and figures. Every second month the implementation status of green procedures and fittings is ranked, this includes figures for waste management (the main focus of Langham Place), energy saving etc. All in all there are around 72 items assessed for ISO. The results are summed up which then gives a percentage, targeting to get 90%. ISO external audit later looks the results up and give recommendations for improvement. When it comes to the point that a hotel has achieved three of his predetermined goals, it receives a waste wise label. The next stage is to achieve nine predetermined goals and then get awarded with the label of excellence. Earth Check benchmarks all results once a year. This is also very important for the company as it compares Langham Hotel with other hotels that are as well concerned about their impact on the environment. As an example, the Earth Check annual assessment indicated that the Langham Hotel's average consumption was 237MJ per guest/night compared to the hotel

industry average of 480MK per guest/night, which gives a better performance than required by Earth Check (336MJ per guest/night).

All hotels of the Langham Group are registered to Earth Check, as it is a good gatekeeper. In 2008, eight hotels have started the program of which seven have received silver certification and one has received Earth Check Benchmark Bronze Status. Therefore completed the benchmarking assessment with the performance indicators above the predetermined baseline level. Furthermore, five new hotels have started the Earth Check process this year. Within the Earth Check Certification scheme a hotel can get bronze for the first year, after one year it gets silver and it has to keep silver for five years in order to get gold. This program requires the participants to constantly improve not only on a benchmark basis, but also on an internal basis in order to improve hotel-specific issues that are beyond the indicators provided by Earth Check.

The Langham Group attaches the importance to have a third party verification process to check their data and assess their process, as the senior management is strictly against "green washing". To receive Earth Check almost ten different types of annual data (electricity-, water-, gas consumption, etc.) are submitted every year, which are then compared to an established database. This comparison can be very complicated as it always depends on the hotel type, size, location, climate zone, number of guests, etc. Further, to check the process, Earth Check undertakes an off-site and on-site assessment every second year, i.e. one year on-site the other year off-site. This programme enables quantitative reporting and a detailed evaluation of risks whilst identifying areas for operational savings. The Langham Group wants to focus on only one system in order to avoid too many different audits and therewith confusing their staff, which would negatively affect daily operations. Langham has further launched a "Guests of the Earth" programme in 2009, which targets to build sustainable communities by creating programmes and charitable partnerships.

Also the Intercontinental has joined Earth Check in 2008. This hotel was the first hotel in Hong Kong with a bronze certificate. Today they have already received a silver certificate. In order to obtain silver they had to follow an environmental management system, including an internal risk assessment to determine the potential environmental risks of the hotel. Once this was done, they had to set environmental targets focusing on energy, consumption, waste reduction, recycling and education. In Hong Kong there are 5 Intercontinental Group Hotels, and they all have a green program called Green Engage. All hotels (more than 4000 worldwide) have to participate in this program. This hotel chain program consists of three levels and each level has two standards, one for newly built hotels and one for existing hotels. Of course new hotels have to be more environmentally friendly, as energy saving

fittings can already be included in the construction phase. Green Engage has many strict requirements including energy saving, waste reduction, education, etc. Regular guidelines are sent to hotels on an online portal where hotels in return have to submit their audits and data. In Wong's opinion, the cover area of this Green Engage program is bigger than the one of Earth Check. Furthermore each hotel of the Intercontinental Group has a green group committee, which consists of representatives of various operational departments and in which members are consulting each other monthly on environmental targets and their results.

Novotel instead reached for the Green Globe and has been certified in 2009 (4th hotel in Hong Kong to receive it after Nikko, Intercontinental and Holiday Inn). To get the Green Globe a hotel needs to implement policies showing the commitment and specify targets, which it wants to achieve within 12 months.

Environmental Initiatives/Practices

The main focus of hotel's sustainable developments is usually on waste management by adhering to the 3 Rs (recycle, reuse, reduce), but also energy - and water saving schemes play a crucial role.

Disney Land goes one step further with regards to waste management by having sorted their waste into 12 different types. They are the top players in decomposing (they resell their waste) and recycling in Hong Kong. Furthermore Disney, Hyatt and Novotel collect waste batteries from the staff.

Being an event hotel, the Grand Hyatt Hong Kong has to deal with a great amount of beverage bottles used for events. In the last two years 144 tons of glass have been collected within the Grand Hyatt. Unfortunately the regulations in Hong Kong require hotels to pay for the collection of glass, which is then used for fabricating brick. Also Novotel is facing the problem of paying for recycling their waste, nevertheless, they recycle their waste by providing their plastic for fabricating clothes, whereas their glass is also used for pavement. Novotel goes one step further by including guests in their waste management procedures and putting one normal bin and one recycle bin in the guestroom used for plastic, glass and other recyclable waste. For the small shampoo bottles in the bathroom, they are not reused nor refilled, but recycled and they have a volume that can serve two guests.

Guests of Novotel and Disney Land Resorts have to notify whenever they want their towels to be changed, otherwise nothing is changed until the 2nd day of stay. Disney Land has not received any complaints as guests only stay 1,5 days on average. Novotel has information

signs about this procedure in the guestroom and guests can choose whether or not they want new linens every day. Moreover Novotel offers a reusable laundry bag. Hyatt does not have this green card for choosing to change the linen. Their guest can wish at the check- in to have it less often changed and if he/she wants a newspaper.

The key cards system for saving energy is already a standard in Novotel and Disney Land Resorts. Hyatt has not yet installed them but this will be done during the next renovation phase of the hotel. Disney Land Resorts have even installed motion sensors in guestrooms in order to switch off energy sources that are not used.

All hotels have already installed flow restrictors in showers and taps and Novotel even uses seawater for flushing the toilet.

LED lighting is also getting more and more common among the interviewed hotels. Hyatt has already replaced 99% of their traditional lighting with LED, which required high investment and took over a year. All lamps at Novotel are either LED or low energy bulbs. Through LED, Disney managed to decrease electricity by 10%.

The Intercontinental has also replaced all the halogen lamps in the guest corridor to LED lamps. Moreover it has an energy-saving centralized AC system, which has two modes, the occupied mode (when you enter your key card in your room), where guests can choose the temperature (ranging between 19° to 25°C) and the saving mode, which means that the guest room has a set temperature. Further, they put a card by the bed, which guests can put on the bed when they wish that linen are not changed every day. They use seawater for their chiller plant, but the Hong Kong requirements are very strict, as they do not accept too much chlorine in the water to be disposed in the harbour, therefore they need to check the chlorine in their water in the laboratory every month. They have a local agent recycling their kitchen oil. A major part of their food waste is not processed yet, but they are donating some of the food to a local charity organization. Plastic bottles, carton, aluminum cans, glass bottles are all recycled. Glass bottles are recycled through a program of the Hong Kong Hotel Association's environmental protection, where hotels sign up and share the transportation costs to a local contractor to collect the hotel's glass bottles. This year they paid 30.000HKD to the contractor. Mr. Wong stated that it always depends on the owner's willingness to invest in expensive fittings, just if the payback period is less than 3 years, they will consider making an investment. Further, they are actively working with two charities, for kids and for mentally ill people, by organising Christmas Parties in their staff cafeteria and excursions or by raising funds. Last year they invested 500.000HKD to change, Heat Exchanger, used in their laundry plant, which works with steam from a steam generator and the return steam

normally would go back to the steam boiler, but due to the heat exchanger the water is heated before it comes to the water boiler.

The Intercontinental's lobby consists of a lot of wide windows on which they tried to install special foils, which protect the building form heat to come into the lobby and help to save a lot of energy on AC. However, these foils were only available in a width which was shorter than the glass and which would be visible for the guests. As it was affecting the appearance, they couldn't install them. For most parts in a hotel, the payback period is more than 5 years that is why it is difficult to implement energy-saving fittings if the old parts are still in a good shape. 99% of the owners are willing to implement environmentally friendly parts if it is saving energy costs significantly, but if is just about the environment, owners are often reluctant to invest.

The Management of Hyatt was facing a the same problem, as it has a lot of windows facing the harbor side, the rooms and especially the lobby area become very hot during the summer. To reduce energy consumption through air-conditioning they put darkening window stickers, which prevent heat generated by the sun to get into the rooms. Through this fitting indoors air temperature could be decreased by 2-3°C. However, this method required a lot of retailer research for finding a proper company that produces right sized window stickers. Moreover high investment was needed and this is the reason why those stickers have been only installed in certain selected locations. In the wintertime, Hyatt uses open ventilation for less AC usage. Novotel has centralized air-condition with a minimum room temperature of 23°C, guests cannot make it colder, just warmer. Disney Land as well uses a even higher minimum AC temperature, but they have a decentralized AC system. This control system keeps room temperature at around 25.5°C and guests may individually control the AC in their room. The chillers are improved and now save costs up to 50%. Moreover they improved the heat pumps and boilers. Novotel commented that they have never received any complaints about higher temperatures and their other environmental practices.

Novotel also has concerns about their carbon footprint and so they paid a company for being their carbon audit and measure carbon footprint. The results will be received next year, because it is the first year of doing this. Moreover they paid a company to measure air and noise level coming from the building. To do so every part of equipment is analyzed individually on its noise emission and after receiving the results the noisy equipment is put away. They had to replace old refrigeration, because of too much noise, too much energy consumption and bad gas emission.

The Langham Group, who states that the first reason to start environmental initiatives is cost saving, shares this opinion. However, the Langham Place Hotel is a little bit more advanced than other hotels. It has an assigned Environmental Manager for the entire Langham Group for 13 hotels for 2 years now, which makes it the only company in Hong Kong to have a fulltime environmental manager. The Langham Hotel itself has further hired a fulltime environmental officer, and Eaton has recently hired a part time assistant environmental officer. Further, they have green hotel group initiatives since 2008, which includes that each hotel has a green team committee, consisting of existing staff. Those initiatives are different in every hotel, even differences within the 3 hotels in Hong Kong due to different location, different guest profiles and different settings of the building (e.g. age) as environmental initiatives depend on the hardware of the building. Langham's Green Team encourages active participation, colleague engagement, learning and awareness, raising new ideas and initiatives for environmental improvement. Langham Place is the most environmentally friendly hotel of the three hotels in Hong Kong. Eaton is the only 4 star hotel and therefore they have a different approach. Eaton has a minimum bathroom stationary. Furthermore Eaton hotel have renovated the lobby, used bamboo for the wall (green materials), indoor green wall, etc. There are a lot of green initiatives done by the Langham Group such as their truck is using biodiesel, which is made from their recycled cooking oil and purchased back as biodiesel from the recycling company. In general, the payback period for environmental initiatives varies a lot, but usually they show some cost savings in the end. LED light bulbs involve some initial costs, but for example the change from normal diesel to bio diesel does not cost much, there is just an adjustment to the truck needed. It is similar for waste, they participate in a government program for glass recycling, and the only thing that costs something is space to store the waste. Further, all of their hotels do charity run, food donations, etc. They aim to work with local communities, not with global worldwide organizations. Further, most of their hotels have participated in the Earth Hour for 3 years now. Langham place has organized free snacks and cocktails event at a backyard during that hour. Most of their hotels have turned off the lights in the public area, asked the guests to turn off the lights as well, the lights at the restaurant would be dimmed down and instead they used candles. Laguna at Eaton was the first restaurant that stopped selling Bluefin tuna in Hong Kong, and today their three hotels provide strict no shark fins menus. Further every employee in their hotel has to do something good for the community, which affects their bonus. This means that they have to attend a community event at least once a year. The Langham group is a group that does not do any carbon offsetting, because they believe that they should reduce their carbon emission themselves instead of offsetting what they have already emitted. Further, activities like tree planting are seen as green washing by the Langham's senior management, as trees are just seeds when they are planted and there are

no carbon emissions offset until maybe 10 years later as a real tree. Langham Group thinks that it is the best to use their expertise to give back to the community. All in all, Ms. Ng believes that senior management support is very important for a company to be committed to environmental protection and CSR. Environmental protection has to be integrated in a business strategy. Being a sustainable company does not only mean to do something environmentally friendly, but also to create a culture of the company, and the culture should start from the senior management.

Langham Place Hotel use key cards in their hotel rooms to avoid unnecessary energy wasting, through not shutting down the lights, TV etc. The laundry service is reduced by just cleaning the towels that are not hanging on the hook and the linens were only changed after request. (Excluding long-term stays) In the showers there are water saving showerheads installed that help to reduce the amount of water used by 27%. In order to reduce waste that is produced by the guests, the shampoo bottles are refillable and they are not changed every day, to avoid taking out bottles that are still half full. There is another bottle provide to leave the guest the decision to either use a new one or take the rest of the old one. The Hotel has the possibility to share some tasks of its departments with their sister Hotel Langham Hotel in TST. A good example for their harmonized cooperation is how they deal with their Laundry. They clean the towels in Mongkok, to safe water and energy. Since their opening in 2005, the hotel tries to reduce waste in order to keep the impact on the environment low. Since 2010 they use special heat pumps to recover heat from the four chillers to heat the water, they managed to save 75% of the energy of the boilers. They were also thinking about using renewable sources of energy, but the project of solar panels had to be rejected due to the too small roof surface. In the last 5-years they reduced their carbon emission by 10%. They saved more than 100 tones of rubbish through recycling activities. The staff is asked to collect electronic items to reuse them. This recycling also has disadvantages for the company as they have to pay, for example 2,000 HKD to a company that picks up the glass at the hotel. Moreover they are successful in saving paper by a paperless office environment. In the end oft the year they used 480000 pieces of paper less than the year before. Unfortunately they are not yet able to recycle their food waste (1 tone per day), due to the additional costs it would cause. They would again have to pay companies to pick it up. Another possibility they were thinking of was to install an own compost machine, but they had to give up that idea, because of the limited space available in the hotel. These limitations forced Langham´s management to be creative and therefore they start to recycle their cooking oil. They achieved to recycle 2,700 liters and transformed it into bio-fuel, which is used to run the hotel truck. It took more than a year of effort until the permission for this project was given.

Water saving can only be achieved through the help oft he staff and the guests. Through encouraging them they managed to use 20% less water.

One of the biggest problems in Hotels is the recycling of food waste, as additional money for the transportation of leftovers is commonly needed and therefore a problem. All hotels in Hong Kong support this statement. Hyatt and Novotel use their food waste as fish food, fish pallets or fish fertilizers. Hyatt also uses the waste for producing soil. Moreover they have an own Bakery for guests and at the end of the day the employees get the left overs, but sometimes it is so much that it is used for charities. In this case homeless people receive it through volunteers giving it out to them. Even hot food is offered. This program is called "Foodlink". Even the already kitchen oil in the kitchen has a value for Hyatt it does not get dumped instead it gets recycled.

Moreover, Novotel has a sustainable purchasing policy as they take care where they buy their products. To give an example, their paper is either 100 % recycled or from the FCE certified forest without using bleaching. Furthermore, all the chemicals used are biologically creditable. Seafood is only bought if it is not on WWF's red list or an endangered species. They even measure food miles from every food item, done by taking the weight and the method of transport into consideration. All in all it can be stated that they only select suppliers by their environmental reputation and they check the key suppliers personally.

Hyatt, Novotel and Disney Land Resorts all participate in charity programs, as they want give something back to the community. Each single Hyatt hotel is doing something on a local basis; this starts with simple things like donating waste mattress, linen and towels to a charity. Novotel is convinced that they should not only do something for the environment but also try to help the local community. The Novotel group's social project is that it has a Chi Hang AIDS foundation in China (School and Factory), which helps Aids infected women to survive. They sell their handmade bags in Novotel Hotels. Novotel's philosophy is "If you do something, do it properly!" The general manager of Novotel Kowloon provided as an example for the green active their „cleaning the beach initiative" and their corporation with "Friends of Earth", where they plant 200 trees every year in the New Territories of Hong Kong.

Disney Land, as it is a huge company has a lot of stakeholders, those have to be convinced before they can get active to change something. Like in the program of Novotel they plant trees and clean areas, but of course in much bigger dimensions as they have the resources. In the Disney Land Theme Park they offer green tracks, where people can learn about the plants and get in touch with the nature, which in the end should raise the wish to protect it. Even

blind people are taken to touch tree. It is a given fact that trees are absorbing greenhouse gas and the theme park will be expand, and therefore they need to reclaim land with additional trees. On the new land gained they will plant 50000 new trees so greenhouse gas will be decreased again. The plans for reclaiming land, caused some discussions with environmentalists, but the doubts disappeared, as they could convince the audience that the reclaiming will even help the environment. The reason for that is that on the ocean ground lots of old ship and alum waste created by the former heavy industry, can be found and this would then get removed.

Staff Training

According to Mr. Antonio Chan, chief engineer at Hong Kong Disneyland, being environmentally friendly increases the workload of an employee only by 5 % in average but the staff likes to do it and the stakeholders expect it.

Usually the staff in a hotel is trained on energy & water conservation, waste handling and pollution issues. Hyatt educates the employees to be responsible recyclers, through the battery collection box, oil and food recycling in kitchen etc. Also Disneyland has special training for the housekeeping employees on how to reduce waste by collecting the bins from the rooms and public areas and separate them into 12 different types. Novotel especially trains its´ housekeeping employees to sort the waste of guestrooms as they deal with the biggest proportion of waste in the hotel. They encouraged their staff to raise new ideas on how to improve environmental practices.

Furthermore, all Novotel´s employees are trained annually and by starting at the company they go through an introduction. Three to four seminars regarding sustainability issues are organized for more awareness. (e.g. WWF – presentation about sustainable seafood, about climate change, excursion to a water treatment plant). Employees are also encouraged to voluntarily participate in beach cleaning events. Last year 50 employees took part. The hotel further has an own organic garden given to its employees. It is located in Ton Chuan and the staff can harvest and grow their own vegetables (garden rented from YMCA hotels). Also Hyatt starts its environmental education in the orientation phase, lasting 2-3 days. First the department heads have to be trained and they then train the rest of the employees. Hyatt has a Green committee that consists of people from different departments and the top managers. Every month they have a meeting to go through actual data.

Also the Intercontinental has different education programs and activities to educate the staff members, like cleaning beaches, planting trees or they built a fence for a local farm, which is

operated by a local charity. Through these kind of activities they aim to pass a message to their employees to be more socially and environmentally responsible. Within their green group, their employees are audited as well and the green group is crosschecking environmental practices in each department. A department, however, which is often neglected, is the kitchen, which contributes crucially to a hotel's impact on the environment. Therefore they manage kitchen staff with trainings and meetings. As a result, the recycling of glass bottles, plastic, etc. has increased a lot since last year. This is an achievement that they can measure after doing a lot of trainings.

The Langham Place states that it is very important to include all employees from all the departments in the green movement and to raise their awareness. Earth Check has some policies or standards that they utilize, but according to Ms. Carmen Ng it is important to combine the employees to get ideas and initiatives.

The Langham Place Group thinks that employees would be more motivated if they get a wider range of opportunities to volunteer, but as they do not have a person responsible for community events these opportunities are very limited. They see that employees want to do something more meaningful than "tree planting".

Marketing/Information for Guests

All Hotels provide environmental information on their Website. Novotel provide feedback forms in their guest rooms. Disney Land´s Sustainability is not heavily promoting this aspect as their focus is on the Disney brand, which has more power to attract guests. According to Hyatt money is always an issue, when it comes to sustainability, but Disney said that this usually does not affect the prices for guests, because new projects need to pay back by themselves. It is not enough to just help the environment

Novotel displays the sustainable policies copy in the lobby to raise the awareness of sustainable practices. Furthermore they have a TV channel, which shows policies and energy saving recommendations, it also gives information on the Earth Hour every year. They have a Facebook page, where they post sustainable issues and many people comment on this posts. They further have a newsletter, called the Green Globe newsletter. All their guests are aware about their green thinking and welcome it. Some people choose the hotel because of its green issues, so it is more handled as a marketing tool than a cost-saving matter. Even on TripAdvisor and other guest forums people leave comments about the hotel's good environmental policies. In the opinion of Novotel, environmental policies help the marketing and hotel positioning.

Every Langham Place Group Hotel has a magazine-type hotel directory, which is updated quarterly and which provides a section on their environmental initiatives. They are however not charging more because they do not think that the market is already there yet to pay more for staying in an environmental hotel. The Langham Place Group sees being sustainable as a basic they provide to their guests. It is not like a special feature that adds a value to your room. However, Earth Check requires them to post their policy in the lobby. Apart from that and the websites and hotel directory, there has not been done a lot, because they want to make sure that first operations are performing an environmental protection workflow, before they start to educate our guests. So the next stop is to engage the guests more to be more environmentally friendly.

Specifically at the Langham Place Hotel guests are further made aware of the green initiatives by providing brochures and magazines in the room. Moreover some seminars are hold to share values and experiences with other companies.

The Intercontinental does not have a statement about green initiatives in their lobby, only in their in-house magazines, which features their green programs. They do not want to say that they are a green hotel as for them being green is a brand image. In their magazines, website etc. guests can get the information on their certificates etc. The Intercontinental agrees with the other hotels, that there is no direct relationship between the room rates and being green as the room rate still depends on the market. However, Mr. Wong (Intercontinental) believes that if there are two hotels and one is greener, people would pay a little bit more to stay in a green hotel and people are already doing this.

Customers

Hyatt is convinced that there is an increased guest interest in green issues. Within their Central Purchasing System, a lot of questions are asked about green procedures.

Disney said that it also depends on the guest's origin, e.g.: Europeans would be interested in sustainability, Chinese not.

Langham Group said that green initiatives are accepted by guests and that they get really excited as the Hotel use high technology phones (IP phone) which have integrated screens that can display information about the hotel, etc., which helps to save paper. Another sign for this acceptance is that in all 3 hotels of the group, whenever the housekeeping sees an opened shampoo bottle, which was half way used, they will replenish a new bottle on the side together with the old one, and 80% to 90% of all guests would use the old one again instead of opening a new one, which shows that guests are aware that they shouldn't be

wasteful. A lot of their guests are from oversees, that is way some large companies ask for information about carbon footprints. Especially for Hong Kong hotels, business travellers are very important and the hotel's carbon footprint is increasingly checked.

The Intercontinental states that guests are often asking what kind of certificates they have and whenever corporate guests want to make a meeting there, they send a questionnaire on environmental protection through their sales department (what do you recycle, etc.). It is becoming a trend for corporate travellers. Regarding leisure guests, they have rarely received information requests in advance. Sometimes, they have received positive comments by leisure guests, but this is still very seldom. However, some guests are not very environmental conscious especially if they expect a certain service quality from a five star hotel and do not want to be faced with any restrictions.

Also at the Langham Place Hotel guests normally welcome green programs, even though some complain e.g. because of the reduced laundry service as the Langham Hotel is a five star hotel. On the other hand, some MICE and corporate customers demand a green movement of the hotel, but it is not common that this influences their final booking decision to a high extent. According to the Langham Place Hotel, for customers, the brand of a hotel is much more important, as being green is already taken for granted.

Hong Kong

All the hotels agree that Hong Kong, compared to other countries, is very slow in terms of adapting sustainability. They think there is too less done! Hyatt's manager stated that Hong Kong is not environmentally friendly and Disneyland's managers said that Hong Kong is a "baby" in sustainability.

Novotel further explains that the HKSAR government does not set severe regulations but they give out a few certifications. Novotel received the Quality Water Building Recognition Scheme, so they have to test the water every 2 month on drinkability.

The Intercontinental has received bronze at the Hong Kong Award of Excellence (HKAEE) in 2009, Hyatt received the same award in 2011 and Langham Place Hong Kong received gold in 2011. The Hong Kong Award for Environmental Excellence (HKAEE) has replaced the former Eco business award, which they have now expanded to 6 industries and the hotel industry is one of them. Disney gets the Hong Kong Environmental Goal Award every second year (hotel can't win this award every consecutive year).

The Intercontinental has further joined another program by the Hong Kong Productivity Council and in 2011 they received class of excellence. In order to achieve this class 9 or more targets on reducing waste need to be achieved, whereas the InterContinental Hong Kong is focusing on 4 key areas including waste reduction, energy saving, recycling and education.

Novotel claims that all regulations made by the government are on a voluntary basis. The HKSAR government is not heavy on enforcing policies but they try to have stricter regulations on waste disposal and recycling. Disney says Hong Kong tried to get the locals to voluntarily separate waste but they would not do it, if they can choose not to do it. Hyatt raised its concern about the food waste as there are 3300 tons per day in Hong Kong and 200 tons could be reused.

A monopolized supplier delivers Hong Kong's electricity and therefore companies must take it from them and have no other choice of for example renewable energy sources. Hong Kong tries to control businesses to not discharge oil etc. (Hyatt).

Langham Place Hong Kong would wish to have more support, through free of charge picking up systems. According to Mr. Jor Fan (Langham Place) this change of regulations is not going to happen in the near future, as Hong Kong likes to avoid having too much influence and restriction from the government, to be seen as a free and easy trading country. According to Mr. Wong (Intercontinental) the reason is that the government tries to create a very free economic society in order to attract a lot of foreigners to invest in Hong Kong. They are afraid that if Hong Kong is implementing too many new policies, important companies go to other countries. Also Ms. Ng (Langham Group) is sharing this opinion by saying that Hong Kong's free market approach is the reason for keeping environmental regulations on a voluntary basis. However, some parts of waste management truly work out, like the Hong Kong's recycling market. This is because private companies are doing the job so there is no need for the government to implement legislations or regulations unless the situation gets worse.

However, according to Mr. Jor Fan (Langham Place), Hong Kong realized that some regulations had to be made and so they implemented some guidelines. These guidelines are based on 3 scopes, whereby the first scope is very broad formulated, including some bans and rules that should already be common knowledge. The second scope is as well mandatory and specifies water usage regulations. The 3 scopes are voluntary and just give recommendations for paper and waste management (Langham Place Hong Kong).

Mr. Wong (Intercontinental) states that the HKSAR government should at least sponsor the collection of food waste and glass bottles, as, if companies would not have to pay for

recycling, every company would participate. However, he thinks that the environmental awareness of Hong Kong's society is increasing. This opinion is confirmed by Ms. Ng (Langham Hotels International Group), who further states that more people would be thinking of choosing a green hotel to a regular one if they charge the same. She says that especially food waste is a big issue in Hong Kong, as the government is not building a composting plant and therefore private companies to process food waste are needed. Further, the HKSAR has implemented a Municipal Waste 10 years Plan, where they look at the product eco-responsibility bill. They have started to charge plastic bags and to include a premium that customers pay when purchasing a product (electronic devices, tires, etc.), which is then used for disposing and recycling the product in an environmentally friendly way. According to Ms. Ng, another problem arising in Hong Kong is the impossibility of installing solar panels, as almost all the buildings are high-rise, so there is not enough space available. Unless they come up with some technology to change the windows to be solar panels, but again it depends on the orientation of the sun. And since Hong Kong is not sunny all the time with all the smog, it is still not efficient enough. In Hong Kong space is definitely the biggest constraint, it is more expensive to buy space than equipment to be more sustainable. Compared to other metropolitan cities, Hong Kong is a very special case as the city itself is not sustainable; it cannot contain itself, as there are no farms and few factories. Everything has to be imported and fresh food is usually imported from Mainland China that is why defrosting food in restaurants is a big issue. The traditional way in Hong Kong to defrosting food is to keep hot tap water running over it, so a lot of water is unnecessarily wasted. Now, they are using better practices, they still run the water, but in a slower way and the wastewater is kept in a tank to reuse in a different way.

One point where Hong Kong is very sustainable is the transportation network as not many people have cars and most of our employees are using public transportation to go to work and cabs are using natural gas.

According to Ms. Ng (Langham Place Group) water shortage is not an issue at all in Hong Kong. Although Hong Kong does not have its own resources, but reservoirs, which do not even supply half of the water supply needed in Hong Kong. Hong Kong has purchased water from China to make sure that there is a constant supply of fresh water from China to Hong Kong, which has the result that water saving is not an issue, especially because water is not expensive in Hong Kong. Further, she states, that all the recyclable material, (paper, plastic, etc.) are shipped to China for processing. If China does not allow any import of waste anymore, that would cause Hong Kong a big problem in recycling and waste handling. In that case all the waste would be without value. Because in Hong Kong it is free to dispose waste

(meaning it is individuals do not have to pay more when disposing more waste, but the landfill is paid by taxes, etc.), so there is no financial incentive for companies to recycle. Further, there is no recycling plant at a government level in Hong Kong; private companies do all recycling.

Future Plans

Hyatt has big plans for their renovations in 2012, as this will open their chance to improve energy usage. Moreover they want to use "green" in their hotel design and fittings. They will have showerheads with water saving modification and key cards for electricity & AC.

Disney wants to use solar panels for their hotel. It will be the 1st hotel in in Hong Kong to use it, expected payback around 10 years.

Novotel plans to do more for the local community and therefore, receive more local certifications. They are planning to make a mid-autumn festival in corporation with the YMCA hotel where they want to invite minor-class people for a dinner.

The Intercontinental Grand Stanford is currently undergoing major renovations, whereby they are aiming to install energy saving fittings. They want to use LED lights and install a new AC system in their renovated ballroom.

The Langham Hotels International Group is planning to use more LED lights in all hotel, as they need less energy and the bulbs include less harmful substances in production. Although the initial costs of LED Lights are still very high, stability and performance varies between brands. The colour spectrum of the light is different to regular light bulbs. LED lightings are constantly improving to become an ultimate solution. The Hotel further wants to continue reducing the use of paper by using more technologies (e.g. they have already implemented Ipads in their restaurants, as a menu).

The Langham Place is planning to join online Green Booking Networks, in order to better promote their sustainable philosophy. Furthermore they will train all new employees on green issues and special operating tasks. They want to further increase their awareness. After that, their next big future plan is to improve their chillers, to safe energy and be more efficient. However, they will not install new chillers before the old ones break down, as in the end all that matters are the costs and return on investment instead of the green issues. Moreover, the management of Langham Hotel honestly said that the main reason for this green movement is cost saving and not the management concern about the environment. Mr. Jor Fan, the environmental management system manager at Langham Place, always has

to convince the owners of the hotel first to get the allowance to install new fittings and make changes, by showing the Return on Investment figures.

Appendix 3: Expert Interview Results – Vienna

Interviewee's List

Klaus Christandl, General Manager of **Hotel Imperial Wien** (Tue, 11th October, 2011 at the Hotel Imperial: Kärntner Ring 16, 1015 Wien, Tel: +43 (0) 1 50110424, Fax: +43 (0) 150110420, klaus.christandl@luxurycollection.com)

Fanny Holzer, General Manager of **25hours Hotel Wien** (Tue, 10th November, 2011 at the 25hours Hotel: Lerchenfelder Strasse 1-3, 1070 Wien, Tel: +43 (0) 1 521510, Fax: +43 (0) 152151888, fholzer@25hours-hotels.com)

Michaela Reitterer, Owner of **Boutique Hotel Stadthalle Wien** (Mon, 24th October, 2011 at the Hotel Stadthalle: Hackengasse 20, 1150 Wien, Tel: +43 (0) 1 9824272, michaela.reitterer@hotelstadthalle.at)

Patrizia Tonin, Public Relations Manager of **Sofitel Vienna Stephansdom** (Mon, 19th December, 2011 at the Sofitel Vienna: Praterstrasse 1, 1020 Wien, Tel: +43 (0) 1906163106, Fax: +43 (0) 1906163000, patrizia.tonin@sofitel.com)

Joined Program

Hotel Imperial just joined national classification programs and this with great success, as they received the "Ö- Umweltgütesiegel" already three times in a row. They have a lot of other predetermined standards and goals to achieve in order to stay in line with the hotel chain's (Starwood hotels) business concept. Hotel Imperial is forced to send a Sustainable Report twice a year to the Starwood's Headquarter in North America in order to prove that they reached the short-term goals, since 2010. The hotel chain's long-term sustainable plan and guideline is called "2030 by 2020". This name stands for the period of time, so ten years, in which they want to reduce their energy consumption by 20% and their water consumption by 30%. The year 2008 is the baseline for these measurements. They are concentrating especially on those two figures as these resources cause the main operating costs.

Sofitel Vienna Stephansdom as well follows the standards and concept of the hotel chain ACCOR, which installed a program called "Earth Guest Policy". This program is based on their business philosophy of hospitality and respect for other cultures. The Earth Guest program consists of two parts, the EGO project (for social and health sector) and the ECO project (protection of the environment). Moreover, ACCOR has received the first place of "tomorrow's value rating" of the biggest hotel chains. ACCOR successfully supports its

surrounding environment, by including the neighbours in the provision of their tourism product. However, Sofitel Vienna is too young and had too less time to receive certifications or awards.

All the hotel experts refuse to participate in ISO, as they believe it would cost too much money and time. Hotel Stadthalle's manager added that it is always hard to certificate a service, which involves a lot of employees. It is more efficient to concentred on your employees and to install a quality assurance policy.

Hotel Stadthalle sees its received certifications as a cheap way of getting more promoted. They only actively participate in "Green Brands", as they believe they will gain marketing advantage. All the other certifications they received, like the Blue Hotel Award, the TRIGOS Österreich, OEGZ Sterne Award 2011, Klimaschutzpreis and many more, they had never applied for. 25hours Hotel has not joined any green classification program, as they are not targeting pure green travellers and because they believe that they will never be absolute green.

Environmental Initiatives/Practices

Hotel Imperial management puts it's sustainable focus first on Resource Management, by limiting their water and energy consumption by 2020, second on Waste management (what is very difficult in Austria) and last but not least on Community Engagement. They believe that supporting people in need by providing education and guidance helps to generate a general growth of the whole Starwood Company, therefore it's their priority.

Hotel Stadthalle's owner stays in contrast to this approach, they hardly join any social program. The only thing they do is donating the money the receive from their green seminars to WWF. However, they truly perceive themselves as social, as they care a lot for their employees. All their staff members have different needs through their diverse national background, coming from 14 different countries.

The 25hours Hotel is going to participate in social projects at least once a year. For this year they plan to organise an event in order to collect money for the organisation "Movember". This organisation use donations to fight against prostate cancer. Later they want to support "Die roten Nasen", clinic clowns, by selling red noses and organising events.

Sofitel is also engaged in social programs, through the "east guest program" of ACCOR. They support the fight against AIDS through enlightening campaigns in affected countries. In

Austria they are donating members of the AIDS LIFE organisation. Last year, they managed to collect more than 15.000€ through the event "Stars, Food & Art".

Hotel Stadthalle spends more personal energy and money to protect the nature. They have key cards, water restrictors, LED lighting, green guest cards and they do not provide a mini bar and AC in each guestroom to save energy. Moreover they have district-heating systems, photovoltaic system and their property is build as a passive house (Investment costs: 5,3Mil.) that stores energy and so no heating or AC is necessary. However, not only their technical fittings are build green they further only offer BIO- Products for breakfast and they try to take food that has the shortest delivering way. Moreover, they try to separate their waste.

Sofitel Vienna as well included renewable technologies in their construction planning. They installed solar panels for heating the water. Moreover, their energy system has an interface with their hotel reservation software, by connecting the energy source only after the guest checked-in with the particular room. Furthermore, the ACCOR "Earth Guest program" (more precise the "Plan for Planet" initiative) aims to increase the number of trees in the Vienna woods. Since 2009, ACCOR managed to finance 1, 70 million trees worldwide. In Austria ACCOR has already planted 2.500 trees since October 2010.

The Imperial Hotel participates as well in environmental protecting programs by installing water flow restrictors in guest rooms/ back of the house. Moreover they put guest cards in the guestrooms to encouraging the customers to use their towels more than once and to switch off the energy saving LED light when leaving the guestroom, as they do not have key card). They have already started to install LED lights in 30% of the hotel, which have a payback period of about 8 month.

25hours Hotel is also convinced of LED-lights although they believe that it is not appropriated for all rooms of their hotel, due to the less shiny light they produce. Imperial further changed their centralized heating and cooling system from a two-pipe system (which just can cool or heat) to a more energy sufficient (does not mix cold and hot water) and more consumer friendly (can be cooled and heated at the same time) four-pipe system. 25hours Hotel does not have any special heating systems. They further can´t put solar panels on their roof, as it is already occupied by technical fitting that can´t be installed in the hotels cellar. However, the hotel garden includes a very nice pond, which is protected by the Hotel's management, as it hosts a duck family every year. They also focus on waste reduction and they separate waste. Waste reduction happens through using reusable shampoo and soap- dispensers and through buying products that are not wrapped in tones of plastic. Moreover, they made use of second hand furniture for 80% of the total hotel's furniture. For bio-waste they want to

use a shredder, as they are not allowed to donate the leftovers. In order to safe water they have flow- restrictors and they just change the linen every third day and take out the towels only if they are thrown on the floor. For cleaning they just use bio- cleaning products. They inform the guest at the check-in. Hotel Stadthalle and 25hours Hotel offer bicycle for rent to their guest and therefore, support a car free environment. Hotel Stadthalle even reduces the room price by 10% if the guest arrives with a bike or travel by train.

Staff Training

At hotel Imperial, like Sofitel and all the other interviewed hotels, the employees are supervised and trained constantly on resource saving workflows. It is essential that the managers act as good role models and lead their staff. However, the GM of Hotel Imperial believes that most of the employees do not really care about being sustainable and that is why they have to be reminded constantly. Sometimes it is necessary to even punish certain departments, that can't deliver improvements.

The 25hours Hotel in contrast states that employees follow green workflows voluntarily; however, the employees are trained when they start to work at the hotel.

Hotel Imperial organized a voluntary "money-collecting event" for UNICEF carried out by his employees. They sold the Austrian's favourite dish "Kaiserschmarren" to pedestrians at the Opera House and Michaelaplatz. In the end they managed to collect 40.000 € in 4 days. Moreover Starwood Hotel's organise on a regular basis employees cycling racing events lasting 3days. On average they managed to gain 210.000 € for different social organisations. Every Starwood hotel can freely decide which event they want to carry out, in order to support either the local community or an international organisation. Hotel Imperial chose UNICEF which supports an education program for kids in Romania, as the mangers believe that there the money is needed more urgently than in a national social organisation. Another example is the Starwood Hotel in Phuket that organised, very spontaneously after the tsunami in 2004, a charity ball to collect money for the victims. Around 45.000 € have been collected.

Ms. Michaela Reitterer the owner of Hotel Stadthalle is convinced that the training of her employees is the most important task to fulfill. It is a never-ending process, but it is necessary that all her employees truly live a green live. They have to understand what is important and receive the knowledge they need to be able to judge what helps the environment and what destroys it. That is the reason why the hotel Stadthalle does not has

any service outsourced. All is provided by the own employees, which are very loyal and receive ongoing seminars and training.

Marketing

Hotel Imperial and Sofitel Vienna do not really promote their environmental programs, as the managers believe that most of the guests perceive being green for granted. The once that are truly interested in their initiatives will ask about it. The General Manager of Hotel Imperial and the PR Manager of Sofitel, said that being green is not a marketing advantage to attract customers, it just can be perceived as a disadvantage if a hotel does not care about being sustainable. Mr. Christandl, manager of the Imperial Hotel, further explained that it is more important and valuable to change the attitude of your employees than to marked it to your customers. Therefore, even on their website the clients has to search for a piece of information. Mr. Christandl further said that Hotel Imperial would never use the word "Green" for their sustainable convincement, as this term is already too politically polluted and leads to misunderstandings.

Hotel Stadthalle is perfectly using it's green movement as a marketing tool. As this hotel is the first zero energy balanced hotel in Vienna, it is of great interest for the media and the whole tourism industry. Therefore, Hotel Stadthalle does not have to put a lot of effort in searching for useful promoting channels, usually the find her. Further they hold some seminars to companies that are interested in joining the green part or work in a section of business that is related to green issues. The seminar participants then usually stay overnight in the hotel. Ms. Reitterer, the owner of Hotel Stadthalle, is convinced that her marketing of green works so well as she truly lives green, not only in her daily business life, but also in her private environment. It is her personal conviction to live sustainable and not the economic advantage is the drive to move green. She never raised prices because of all the necessary reservations; she just had to change her yield management. In a second stage the hotel joined green travel platforms like Verträglich Reisen, Fair Reisen etc. and they want to stay a 3 star hotel as the owner perceives this category as the best one to convey the green image.

25hours Hotel does not market their few green practices, not even at the website, as their sustainable programs are too limited at the moment. The management thinks in an economic instead of green way, meaning that they follow green engagements just if they are able to include those into their daily business without any inconveniences.

Customers

Mr. Klaus Christandl manager of the Imperial Hotel said that some of his guests do not care about sustainability and sometimes even refuse to listen to his front office employees when they start talking about the sustainable initiatives of the hotel. These guests are often from Golf Regions, as they are not used to deal with the scarcity of resources. Furthermore, these guests believe that the hotel service will suffer, just because they are not familiar with green topics. However the majority of business guests perceive it as granted that a hotel participates in environmental protection. Sofitel Vienna shares the opinion of Mr. Christandl regarding the guests within the luxury tourism segment. Sustainability must be included in the whole tourism package and the tourists will be willing to support this change. According to the GM of Imperial Hotel, many companies would not book a hotel that does not care about being green. Moreover, approximately only 10% of them are willing to pay more for staying in a sustainable hotel.

The 25hours Hotel is convinced that there is already a visible movement to green of their guest's attitude. They are targeting mainly 20-50 year old guests. Humans cannot longer deny that something has to be done to protect our environment.

Hotel Stadthalle found a new target group in companies that are working in the business field of green development. These business travellers prefer to stay in a green branded hotel in order to emphasize their green attitude. Almost all guest at the hotel Stadthalle truly live green also at home and therefore, they receive just a few complaints about the air temperature, which constantly stays at 21°C. The manager perceives the Arabic travellers as more careless about energy saving, but cannier with saving water than Austrians. This is because they have the most sunlight and the biggest oil sources in their country, but they suffer under the lack of water. The young generation is getting more aware, but there are doubts that they would pay more money just for staying in a green hotel.

Vienna

The General Manager´s of Hotel Imperial and 25hours Hotel do not feel the need for more environmental regulations to be made by the government, as there are already too many rules and restrictions in force. Hotel Stadthalle claims that there are too narrow construction rules. In Hotel Imperial's GM opinion the Austrian government focuses on problems that are not even mentioned in other countries and that are sometimes of little importance. He believes that a sustainable movement must come from inside the company and must be truly believed, because this is the only way to achieve valuable changes. In his opinion, however,

Vienna should improve its waste management. The state-owned waste disposal company is not prepared to keep the already before separated waste by hotels, separated in the end. Furthermore, 25hours Hotel claims that the government should find better ways to recycle or even reuse food leftovers. Now, because of the strict food regulations in Austria it is almost impossible to donate food to charity organizations and people in need. Hotel Stadthalle's owner added that the green movement is very young and therefore, a lot of regulations and laws need to be changed or newly invented. However, they hotel's owner was very happy to receive financial support from the Austrian's Energy Forum for the construction of the photovoltaic system.

Hotel Sofitel Vienna perceives the regulations of the Austrian government as sufficient. Nevertheless, they would like to go beyond complying with regulations in order to obtain better quality with less impact on the nature.

Future Plans

Hotel Imperial wants to do some long-term investments into better and easier to control heating and cooling systems to save energy. Furthermore they want to change the rest of their ordinary lamps to LED bulbs.

For the future hotel Stadthalle wants to continue being green by seeking state-of-the art fittings. Further, they are considering expanding their current market position by creating the first green budget hotel in Vienna.

25hours Hotel is planning to use the limited unused roof space to install beehives to produce their own honey.

Sofitel Vienna Stephansdom has no plans up to now, as they have just finished their constructions and started to operate. They are still in the evaluation process of their ongoing operations, in order to clarify in which areas their performance could be improved.

Appendix 4: Online Questionnaire

Thank you for your interest in our study!

We are two students at the MODUL University Vienna. For our Bachelor Thesis we are conducting a survey to find out what factors are decisive when booking a hotel. We would very much appreciate if you could dedicate approximately 15 minutes to answer our questions. The first section of the survey might seem repetitive, however this is the main part, which is followed by simple check box questions. We appreciate you taking the time and effort.

Thank you very much for participating in the survey!

Sincerely,
Julia Schneider & Susanne Klepsch

Have you taken a trip for leisure purposes in the past 2 years?

- ◯ Yes
- ◯ No

How many trips have you taken for leisure purposes in the last 12 months? (please group them as specified below)

	Number of trips
Trips of short duration (2-4 days)	
Trips of medium duration (5-14 days)	
Trips of long duration (more than 14 days)	

What is your preferred choice of accommodation when on holiday?

- ◯ Bed & Breakfast
- ◯ Hostel
- ◯ Hotel
- ◯ Staying with friends/relatives
- ◯ Camp site
- ◯ Rented Apartment/House
- ◯ Other, please specify:

How much do you normally spend on the following holiday components (per person)?

	0-50€	51-100€	101-150€	151-200€	201-250€	More than 250€
Activities at the destination (per day)	◯	◯	◯	◯	◯	◯
Accommodation (per night)	◯	◯	◯	◯	◯	◯
Transport to destination (one way)	◯	◯	◯	◯	◯	◯

With whom do you usually travel?

- ◯ Alone
- ◯ With friends
- ◯ With relatives
- ◯ With spouse/partner
- ◯ With activity club
- ◯ Other, please specify

When booking a hotel, I first look at....

	Strongly agree		Neutral		Strongly disagree
...price.	◯	◯	◯	◯	◯
...location.	◯	◯	◯	◯	◯
...environmental friendliness.	◯	◯	◯	◯	◯
...reputation and consumer reviews.	◯	◯	◯	◯	◯
...star rating.	◯	◯	◯	◯	◯

Imagine you and a friend are planning a weekend trip to Barcelona. You need to decide on a place to stay for the two nights. You are planning to share a room. After some research your friend suggests four alternatives in the city centre to you, which you are asked to choose from. Each hotel is described below.

Please consider the following scenarios independently from each other and indicate in each case which hotel you prefer most and which you prefer least.

	4/5 star hotel Excellent rating on tripadvisor Not environmentally certified No use of organic products 180€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Not environmentally certified Use of organic products 150€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Environmentally certified No use of organic products 90€/night (double room incl. breakfast)
Most Preferred	◯	◯	◯	◯
Least Preferred	◯	◯	◯	◯

Would you book the hotel you prefer most?

- ◯ Yes
- ◯ No

	3 star hotel Excellent rating on tripadvisor Environmentally certified No use of organic products 150€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Environmentally certified Use of organic products 180€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Environmentally certified No use of organic products 90€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	3 star hotel Excellent rating on tripadvisor Not environmentally certified Use of organic products 90€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Not environmentally certified No use of organic products 180€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Not environmentally certified Use of organic products 150€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	3 star hotel Excellent rating on tripadvisor Environmentally certified No use of organic products 150€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Not environmentally certified Use of organic products 150€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	3 star hotel Excellent rating on tripadvisor Not environmentally certified Use of organic products 90€/night (double room incl. breakfast)	3 star hotel Excellent rating on tripadvisor Environmentally certified No use of organic products 150€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 120€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Environmentally certified Use of organic products 180€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	4/5 star hotel Average rating on tripadvisor Not environmentally certified Use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Not environmentally certified No use of organic products 90€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Environmentally certified Use of organic products 90€/night (double room incl. breakfast)	3 star hotel Excellent rating on tripadvisor Environmentally certified No use of organic products 120€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	4/5 star hotel Average rating on tripadvisor Environmentally certified No use of organic products 180€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Not environmentally certified Use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 150€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Not environmentally certified No use of organic products 90€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	4/5 star hotel Average rating on tripadvisor Not environmentally certified Use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Not environmentally certified No use of organic products 90€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Environmentally certified Use of organic products 90€/night (double room incl. breakfast)	3 star hotel Excellent rating on tripadvisor Environmentally certified No use of organic products 120€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	3 star hotel Excellent rating on tripadvisor Not environmentally certified Use of organic products 90€/night (double room incl. breakfast)	3 star hotel Excellent rating on tripadvisor Environmentally certified No use of organic products 150€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 120€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Environmentally certified Use of organic products 180€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	3 star hotel Excellent rating on tripadvisor Environmentally certified No use of organic products 150€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Not environmentally certified Use of organic products 150€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	4/5 star hotel Average rating on tripadvisor Environmentally certified No use of organic products 180€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 150€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 150€/night (double room incl. breakfast)	3 star hotel Excellent rating on tripadvisor Not environmentally certified Use of organic products 180€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 150€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Not environmentally certified No use of organic products 90€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Environmentally certified Use of organic products 90€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 150€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	4/5 star hotel Average rating on tripadvisor Environmentally certified No use of organic products 180€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Not environmentally certified Use of organic products 120€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Environmentally certified Use of organic products 90€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Not environmentally certified No use of organic products 150€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

	3 star hotel Excellent rating on tripadvisor Environmentally certified No use of organic products 150€/night (double room incl. breakfast)	3 star hotel Average rating on tripadvisor Environmentally certified Use of organic products 180€/night (double room incl. breakfast)	4/5 star hotel Excellent rating on tripadvisor Environmentally certified Use of organic products 120€/night (double room incl. breakfast)	4/5 star hotel Average rating on tripadvisor Environmentally certified No use of organic products 90€/night (double room incl. breakfast)
Most Preferred	○	○	○	○
Least Preferred	○	○	○	○

Would you book the hotel you prefer most?

○ Yes
○ No

Please indicate how much you agree to the following questions ...

Staying at a green hotel when travelling would enable me to....	Strongly agree		Neutral		Strongly disagree
... protect our environment.	○	○	○	○	○
... be more socially responsible.	○	○	○	○	○
... experience a healthy environmental friendly guestroom.	○	○	○	○	○
... perform environmental friendly practices.	○	○	○	○	○
... enjoy environmental friendly products and healthy amenities.	○	○	○	○	○
... eat fresh and healthy foods.	○	○	○	○	○
... have reduced prices.	○	○	○	○	○

Please indicate how much you agree to the following questions ...

	Strongly agree		Neutral		Strongly disagree
My family (or relatives) thinks I should stay at a green hotel when traveling.	○	○	○	○	○
My friends think I should stay at a green hotel when traveling.	○	○	○	○	○
My colleagues (or co-workers) think I should stay at a green hotel when traveling.	○	○	○	○	○

Please indicate how much you agree to the following questions ...

	Strongly agree		Neutral		Strongly disagree
Staying at a green hotel is expensive.	○	○	○	○	○
Finding a green hotel when traveling takes time and effort.	○	○	○	○	○
Location of a green hotel needs to be convenient.	○	○	○	○	○
My company/school/others that pays for travel expenses encourage me to stay at a certain hotel.	○	○	○	○	○

Please indicate how much you agree to the following questions ...

	Strongly agree		Neutral		Strongly disagree
Most people who are important to me think I should stay at a green hotel when traveling.	○	○	○	○	○
Most people who are important to me would want me to stay at a green hotel when traveling.	○	○	○	○	○
People whose opinions I value would prefer that I stay at a green hotel when traveling.	○	○	○	○	○

Please indicate how much you agree to the following questions ...

	Strongly agree		Neutral		Strongly disagree
Whether or not I stay at a green hotel when traveling is completely up to me.	○	○	○	○	○
I am confident that if I want, I can stay at a green hotel when traveling.	○	○	○	○	○
I have resources, time, and opportunities to stay at a green hotel when traveling.	○	○	○	○	○

Please indicate how much you agree to the following questions ...

	Strongly agree		Neutral		Strongly disagree
I am willing to stay at a green hotel when traveling.	○	○	○	○	○
I plan to stay at a green hotel when traveling.	○	○	○	○	○
I will make an effort to stay at a green hotel when traveling.	○	○	○	○	○

Please indicate how much you agree to the following questions ...

	Strongly agree		Neutral		Strongly disagree
I frequently use the blue or green box (bag) for recycling.	○	○	○	○	○
When buying something wrapped, I often check whether it is wrapped in recyclable material.	○	○	○	○	○
I frequently buy disposable products (e.g., plastic knives, forks, and spoons or styrofoam cups).	○	○	○	○	○

A green hotel must have...

	Strongly agree		Neutral		Strongly disagree
...green construction materials.	○	○	○	○	○
...renewable energy sources.	○	○	○	○	○
...green business operations.	○	○	○	○	○
...a certificate.	○	○	○	○	○
...programs to support green projects.	○	○	○	○	○
...procedures to recycle food left-overs.	○	○	○	○	○

A hotels main reason to perform "green" is...

	Strongly agree		Neutral		Strongly disagree
...to cut costs.	○	○	○	○	○
...a company's "green" attitude.	○	○	○	○	○
...marketing.	○	○	○	○	○
...to get a certificate.	○	○	○	○	○
...government regulations.	○	○	○	○	○

Please indicate how much you agree to the following questions ...

	Strongly agree		Neutral		Strongly disagree
I am participating in sustainable practices recommended by a hotel I am staying in e.g. not changing towels and bed sheets every day, turning light of when leaving the room, etc.	○	○	○	○	○
It is important for hotels to support the preservation of the environment.	○	○	○	○	○
I think hotels are essentially contributing to the negative impacts on the environment.	○	○	○	○	○

Listed below are statements about the relationship between humans and the environment. People have different opinions about these statements. We are interested in your opinion. Please indicate the degree to which you agree or disagree with each statement.

	Strongly agree	Mildly agree	Unsure	Mildly disagree	Strongly disagree
The so-called "ecological crisis" facing humankind has been greatly exaggerated.	○	○	○	○	○
Humans were meant to rule over the rest of nature.	○	○	○	○	○
Despite our special abilities, humans are still subject to the laws of nature.	○	○	○	○	○
If things continue on their present course, we will soon experience a major environmental catastrophe.	○	○	○	○	○
Plants and animals have as much right as humans to exist.	○	○	○	○	○
The earth has plenty of natural resources if we just learn how to develop them.	○	○	○	○	○
We are approaching the limit of the number of people the earth can support.	○	○	○	○	○
Human ingenuity will insure that we do not make the earth unlivable.	○	○	○	○	○
When humans interfere with nature, it often produces disastrous consequences.	○	○	○	○	○
Humans will eventually learn enough about how nature works to be able to control it.	○	○	○	○	○
The balance of nature is very delicate and easily upset.	○	○	○	○	○
The earth is like a spaceship with very limited room and resources.	○	○	○	○	○
Humans are severely abusing the earth.	○	○	○	○	○
Humans have the right to modify the natural environment to suit their needs.	○	○	○	○	○
The balance of nature is strong enough to cope with the impacts of modern industrial nations.	○	○	○	○	○

Where do you come from?

- Belgium
- China
- Germany
- Austria
- France
- Italy
- Croatia
- Netherlands
- Poland
- Portugal
- Romania
- Russia
- Switzerland
- Slovakia
- Slovenia
- Spain
- Czech Republic
- Ukraine
- Hungary
- USA
- United Kingdom
- Other, please specify:

How old are you?

What is your gender?

- Female
- Male

What is the highest education you have completed?

- Completed primary school (up to 10 years)
- Completed secondary school/high school with A-level (up to 14 years)
- Completed university/college degree

What is your current occupation?

- Studying/training
- Employed
- Self-employed
- Not employed
- Retired

What is your monthly discretionary* income?

*(After all your regular living expenses have been paid)

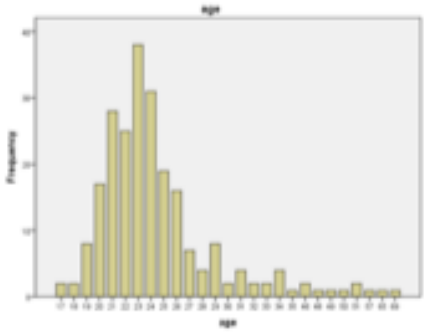
- 0-500€
- 501-1000€
- 1001-1500€
- 1501-2000€
- More than 2000€

Thank you for completing our study! You can now close this window.

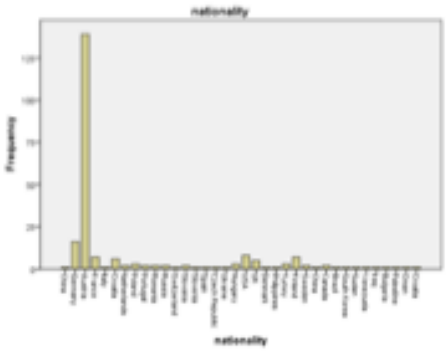
Appendix 5: Quantitative Research - SPSS Output

A) Sample Profiles - Bar Charts

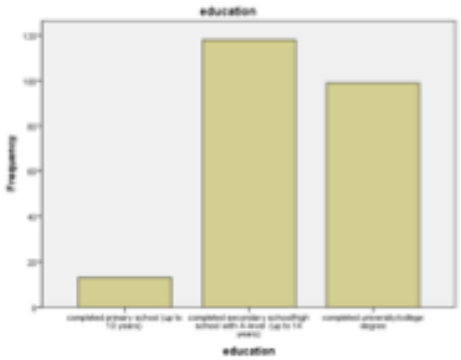
Age Distribution



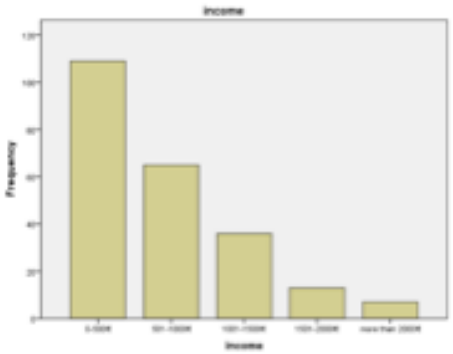
Nationality Distribution



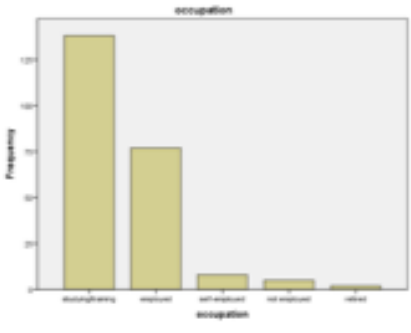
Level of Education Distribution



Income Distribution



Occupational Distribution



B) Frequency Tables - Accommodations and Expenditures

Frequency Table of the Most to the Least Preferred Accommodation Types

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	hotel	95	41.3	41.3	41.3
	hostel	32	13.9	13.9	55.2
	B&B	24	10.4	10.4	65.7
	rented apartment/house	27	11.7	11.7	77.4
	camp site	8	3.5	3.5	80.9
	VFR	41	17.8	17.8	98.7
	couchsurfing	3	1.3	1.3	100.0
	Total	230	100.0	100.0	

Number of Valid versus Missing Values for Determining the Distribution of Expenditure

Statistics

		Expenditure Accommodation	Expenditure Activities	Expenditure Transportation
N	Valid	230	230	230
	Missing	0	0	0
Mean		1.56	1.56	2.85
Minimum		1	1	1
Maximum		4	6	6

Frequency Table of Accommodation Expenditure

Expenditure Accommodation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-50€	131	57.0	57.0	57.0
	51-100€	77	33.5	33.5	90.4
	101-150€	14	6.1	6.1	96.5
	151-200€	8	3.5	3.5	100.0

Expenditure Accommodation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-50€	131	57.0	57.0	57.0
	51-100€	77	33.5	33.5	90.4
	101-150€	14	6.1	6.1	96.5
	151-200€	8	3.5	3.5	100.0
	Total	230	100.0	100.0	

Frequency Table of Activities Expenditure

Expenditure Activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-50€	128	55.7	55.7	55.7
	51-100€	84	36.5	36.5	92.2
	101-150€	13	5.7	5.7	97.8
	151-200€	2	.9	.9	98.7
	201-250€	2	.9	.9	99.6
	More than 250€	1	.4	.4	100.0
	Total	230	100.0	100.0	

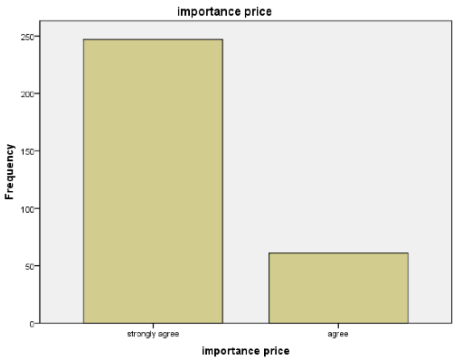
Frequency Table of Transportation Expenditure

Expenditure Transportation

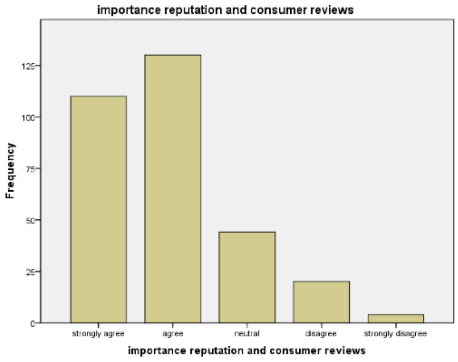
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-50€	44	19.1	19.1	19.1
	51-100€	69	30.0	30.0	49.1
	101-150€	54	23.5	23.5	72.6
	151-200€	26	11.3	11.3	83.9
	201-250€	14	6.1	6.1	90.0
	More than 250€	23	10.0	10.0	100.0
	Total	230	100.0	100.0	

C) Importance of Different Booking Decision Factors - Bar Charts

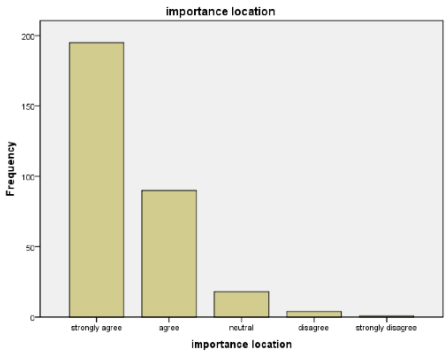
Price Importance



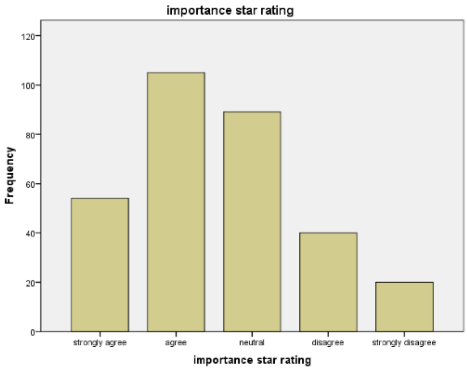
Reputation and Consumer Reviews Importance



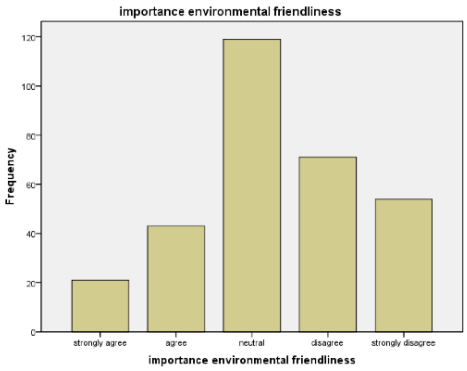
Location Importance



Star Rating Importance



Enviromental Friendliness Importance



D) Importance of Different Booking Decision Factors - Frequency Tables

Number of Valid versus Missing Values for Determining the Distribution of Importance

Statistics

		importance price	importance location	importance environmental friendliness	importance reputation and consumer reviews	importance star rating
N	Valid	308	308	308	308	308
	Missing	0	0	0	0	0
Mean		1.20	1.46	3.31	1.95	2.57
Minimum		1	1	1	1	1
Maximum		2	5	5	5	5

Frequency Table of Price Importance - Dichotomous

importance price

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	247	80.2	80.2	80.2
	agree	61	19.8	19.8	100.0
	Total	308	100.0	100.0	

Frequency Table of Location Importance

importance location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	195	63.3	63.3	63.3
	agree	90	29.2	29.2	92.5
	neutral	18	5.8	5.8	98.4
	disagree	4	1.3	1.3	99.7
	strongly disagree	1	.3	.3	100.0
	Total	308	100.0	100.0	

Frequency Table of Enviromental Friendliness Importance

Importance environmental friendliness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	21	6.8	6.8	6.8
	agree	43	14.0	14.0	20.8
	neutral	119	38.6	38.6	59.4
	disagree	71	23.1	23.1	82.5
	strongly disagree	54	17.5	17.5	100.0
	Total	308	100.0	100.0	

Frequency Table of Reputation and Consumer Reviews Importance

importance reputation and consumer reviews

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	110	35.7	35.7	35.7
	agree	130	42.2	42.2	77.9
	neutral	44	14.3	14.3	92.2
	disagree	20	6.5	6.5	98.7
	strongly disagree	4	1.3	1.3	100.0
	Total	308	100.0	100.0	

Frequency Table of Star Rating Importance

importance star rating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	54	17.5	17.5	17.5
	agree	105	34.1	34.1	51.6
	neutral	89	28.9	28.9	80.5
	disagree	40	13.0	13.0	93.5
	strongly disagree	20	6.5	6.5	100.0
	Total	308	100.0	100.0	

E) What Makes a Hotel Green - Frequency Tables

Green Construction Materials

green construction materials

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	97	42.2	42.2	42.2
	agree	73	31.7	31.7	73.9
	neutral	44	19.1	19.1	93.0
	disagree	8	3.5	3.5	96.5
	strongly disagree	8	3.5	3.5	100.0
	Total	230	100.0	100.0	

Energy Sources

renewable energy sources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	157	68.3	68.3	68.3
	agree	47	20.4	20.4	88.7
	neutral	24	10.4	10.4	99.1
	disagree	1	.4	.4	99.6
	strongly disagree	1	.4	.4	100.0
	Total	230	100.0	100.0	

Green Business Operations

green business operations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	115	50.0	50.0	50.0
	agree	70	30.4	30.4	80.4
	neutral	38	16.5	16.5	97.0
	disagree	4	1.7	1.7	98.7
	strongly disagree	3	1.3	1.3	100.0
	Total	230	100.0	100.0	

Green Cerifications

a certificate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	105	45.7	45.7	45.7
	agree	55	23.9	23.9	69.6
	neutral	50	21.7	21.7	91.3
	disagree	15	6.5	6.5	97.8
	strongly disagree	5	2.2	2.2	100.0
	Total	230	100.0	100.0	

Programs to Support Green Projects

programs to support green projects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	82	35.7	35.7	35.7
	agree	71	30.9	30.9	66.5
	neutral	51	22.2	22.2	88.7
	disagree	19	8.3	8.3	97.0
	strongly disagree	7	3.0	3.0	100.0
	Total	230	100.0	100.0	

F) Reasons for Hotels to Perform Green - Frequency Tables

Number of Valid Versus Missing Values for Determining the Distribution of Reasons to Perform Green

A hotels main reason to perform "green" is…

		to cut costs.	a company's "green" attitude.	marketing.	to get a certificate.	government regulations.
N	Valid	230	230	230	230	230
	Missing	0	0	0	0	0
Mean		3.10	1.83	1.90	2.19	2.67
Minimum		1	1	1	1	1
Maximum		5	5	5	5	5

Frequency Table of the Reason to Cut Costs

to cut costs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	33	14.3	14.3	14.3
	agree	34	14.8	14.8	29.1
	neutral	73	31.7	31.7	60.9
	disagree	56	24.3	24.3	85.2
	strongly disagree	34	14.8	14.8	100.0
	Total	230	100.0	100.0	

Frequency Table of the Reason that a Company has a Green Attitude

a company's "green" attitude

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	98	42.6	42.6	42.6
	agree	90	39.1	39.1	81.7
	neutral	30	13.0	13.0	94.8
	disagree	7	3.0	3.0	97.8
	strongly disagree	5	2.2	2.2	100.0
	Total	230	100.0	100.0	

Frequency Table of the Reason of Marketing

marketing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	93	40.4	40.4	40.4
	agree	92	40.0	40.0	80.4
	neutral	28	12.2	12.2	92.6
	disagree	9	3.9	3.9	96.5
	strongly disagree	8	3.5	3.5	100.0
	Total	230	100.0	100.0	

Frequency Table of the Reason of Getting Certificated

to get a certificate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	68	29.6	29.6	29.6
	agree	90	39.1	39.1	68.7
	neutral	43	18.7	18.7	87.4
	disagree	18	7.8	7.8	95.2
	strongly disagree	11	4.8	4.8	100.0
	Total	230	100.0	100.0	

Frequency Table of the Reason of Govermental Regulations

government regulations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	41	17.8	17.8	17.8
	agree	62	27.0	27.0	44.8
	neutral	81	35.2	35.2	80.0
	disagree	25	10.9	10.9	90.9
	strongly disagree	21	9.1	9.1	100.0
	Total	230	100.0	100.0	

G) What Makes People Stay in a Green Hotel – Frequency Tables

Number of Valid Versus Missing Values for Determining the Distribution of What Makes People Stay in a Green Hotel

Staying at a green hotel when travelling would enable me too…

		green hotel - protect our environment	green hotel - be more socially responsible	green hotel - experience a healthy environmentally friendly guestroom	green hotel - perform environmentally practices	green hotel - enjoy environmentally friendly products and healthy amenities	green hotel - eat fresh and healthy foods	green hotel - have reduced prices
N	Valid	230	230	230	230	230	230	230
	Missing	0	0	0	0	0	0	0
Mean		1.89	1.96	1.99	2.15	1.99	1.86	3.49
Minimum		1	1	1	1	1	1	1
Maximum		5	5	5	5	5	5	5

Frequency Table of the Reason to Eat Healthy and Fresh

green hotel - eat fresh and healthy foods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	107	46.5	46.5	46.5
	agree	69	30.0	30.0	76.5
	neutral	38	16.5	16.5	93.0
	disagree	11	4.8	4.8	97.8
	strongly disagree	5	2.2	2.2	100.0
	Total	230	100.0	100.0	

Frequency Table of the Reason to Have Lower Prices

green hotel - have reduced prices

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	25	10.9	10.9	10.9
	agree	21	9.1	9.1	20.0
	neutral	57	24.8	24.8	44.8
	disagree	70	30.4	30.4	75.2
	strongly disagree	57	24.8	24.8	100.0
	Total	230	100.0	100.0	

H) Who Make People Stay In a Green Hotel - Frequency Tables

Number of Valid Versus Missing Values for Determining the Distribution of Who Make People Stay in a Green Hotel

Statistics

		My family (or relatives) thinks I should stay at a green hotel when traveling.	My friends think I should stay at a green hotel when traveling.	My colleagues (or co-workers) think I should stay at a green hotel when traveling.
N	Valid	230	230	230
	Missing	0	0	0
Mean		3.72	3.63	3.60
Minimum		1	1	1
Maximum		5	5	5

		Most people who are important to me think I should stay at a green hotel when traveling.	Most people who are important to me would want me to stay at a green hotel when traveling.	People whose opinions I value would prefer that I stay at a green hotel when traveling.	Whether or not I stay at a green hotel when traveling is completely up to me.	I am confident that if I want, I can stay at a green hotel when traveling.	I have resources, time, and opportunities to stay at a green hotel when traveling.
N	Valid	230	230	230	230	230	230
	Missing	0	0	0	0	0	0
Mean		3.66	3.72	3.54	1.46	1.72	2.90
Minimum		1	1	1	1	1	1
Maximum		5	5	5	5	5	5

I) Reasons for/against staying in a Green Hotel – Frequency Tables

Number of Valid Versus Missing Values for Determining the Distribution of Reasons for/against staying in a Green Hotel

Statistics

		Staying at a green hotel is expensive.	Finding a green hotel when traveling takes time and effort.	Location of a green hotel needs to be convenient.	My company/school/others that pays for travel expenses encourage me to stay at a certain hotel.
N	Valid	230	230	230	230
	Missing	0	0	0	0
Mean		2.13	2.13	2.13	3.32
Minimum		1	1	1	1
Maximum		5	5	5	5

Frequency Table of Reasons for/against staying in a Green Hotel - because it is Expensive

Staying at a green hotel is expensive.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	57	24.8	24.8	24.8
	agree	99	43.0	43.0	67.8
	neutral	65	28.3	28.3	96.1
	disagree	4	1.7	1.7	97.8
	strongly disagree	5	2.2	2.2	100.0
	Total	230	100.0	100.0	

Frequency Table of Reasons for/against staying in a Green Hotel - because it takes time and effort to find one

Finding a green hotel when traveling takes time and effort.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	63	27.4	27.4	27.4
	agree	91	39.6	39.6	67.0
	neutral	63	27.4	27.4	94.3

	disagree	9	3.9	3.9	98.3
	strongly disagree	4	1.7	1.7	100.0
	Total	230	100.0	100.0	

J) Supporting Green Practices - Frequency Tables

Number of Valid Versus Missing Values for Determining the Distribution of Supporting Green Practices

Statistics

		I am participating in sustainable practices recommended by a hotel I am staying in	It is important for hotels to support the preservation of the environment.	I think hotels are essentially contributing to the negative impacts on the environment.
N	Valid	230	230	230
	Missing	0	0	0
Mean		1.49	1.54	2.40
Minimum		1	1	1
Maximum		5	5	5

Frequency Table of Supporting Green Practices in a Hotel

I am participating in sustainable practices recommended by a hotel I am staying in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	154	67.0	67.0	67.0
	agree	52	22.6	22.6	89.6
	neutral	16	7.0	7.0	96.5
	disagree	4	1.7	1.7	98.3
	strongly disagree	4	1.7	1.7	100.0
	Total	230	100.0	100.0	

Frequency Table of the Customer's Perception of the Importance for Hotels to Support the Preservation of the Environment

It is important for hotels to support the preservation of the environment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	138	60.0	60.0	60.0
	agree	64	27.8	27.8	87.8
	neutral	24	10.4	10.4	98.3
	disagree	3	1.3	1.3	99.6
	strongly disagree	1	.4	.4	100.0
	Total	230	100.0	100.0	

Frequency Table of the Customer's Perception of the Hotel's Negative Impact on the environment

I think hotels are essentially contributing to the negative impacts on the environment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	55	23.9	23.9	23.9
	agree	60	26.1	26.1	50.0
	neutral	90	39.1	39.1	89.1
	disagree	17	7.4	7.4	96.5
	strongly disagree	8	3.5	3.5	100.0
	Total	230	100.0	100.0	

K) New Environmental Paradigm (NEP) Scale – Frequency Tables

We are approaching the limit of the number of people the earth can support

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	54	23.5	23.5	23.5
	mildly agree	74	32.2	32.2	55.7
	unsure	54	23.5	23.5	79.1
	mildly disagree	35	15.2	15.2	94.3
	strongly disagree	13	5.7	5.7	100.0
	Total	230	100.0	100.0	

Humans have the right to modify the natural environment to suit their needs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	12	5.2	5.2	5.2
	mildly agree	34	14.8	14.8	20.0
	unsure	54	23.5	23.5	43.5
	mildly disagree	76	33.0	33.0	76.5
	strongly disagree	54	23.5	23.5	100.0
	Total	230	100.0	100.0	

When humans interfere with nature, it often produces disastrous consequences

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	81	35.2	35.2	35.2
	mildly agree	85	37.0	37.0	72.2
	unsure	46	20.0	20.0	92.2
	mildly disagree	16	7.0	7.0	99.1
	strongly disagree	2	.9	.9	100.0
	Total	230	100.0	100.0	

Human ingenuity will insure that we do not make the earth unlivable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	18	7.8	7.8	7.8
	mildly agree	52	22.6	22.6	30.4
	unsure	87	37.8	37.8	68.3
	mildly disagree	46	20.0	20.0	88.3
	strongly disagree	27	11.7	11.7	100.0
	Total	230	100.0	100.0	

Humans are severely abusing the earth

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	121	52.6	52.6	52.6
	mildly agree	79	34.3	34.3	87.0
	unsure	23	10.0	10.0	97.0
	mildly disagree	4	1.7	1.7	98.7
	strongly disagree	3	1.3	1.3	100.0
	Total	230	100.0	100.0	

The earth has plenty of natural resources if we just learn how to develop them

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	61	26.5	26.5	26.5
	mildly agree	64	27.8	27.8	54.3
	unsure	61	26.5	26.5	80.9
	mildly disagree	31	13.5	13.5	94.3
	strongly disagree	13	5.7	5.7	100.0
	Total	230	100.0	100.0	

Plants and animals have as much right as humans to exist

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	122	53.0	53.0	53.0
	mildly agree	66	28.7	28.7	81.7
	unsure	25	10.9	10.9	92.6
	mildly disagree	14	6.1	6.1	98.7
	strongly disagree	3	1.3	1.3	100.0
	Total	230	100.0	100.0	

The balance of nature is strong enough to cope with the impacts of modern industrial nations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	12	5.2	5.2	5.2
	mildly agree	26	11.3	11.3	16.5
	unsure	33	14.3	14.3	30.9
	mildly disagree	70	30.4	30.4	61.3
	strongly disagree	89	38.7	38.7	100.0
	Total	230	100.0	100.0	

Despite our special abilities, humans are still subject to the laws of nature

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	131	57.0	57.0	57.0
	mildly agree	70	30.4	30.4	87.4
	unsure	25	10.9	10.9	98.3
	mildly disagree	3	1.3	1.3	99.6
	strongly disagree	1	.4	.4	100.0
	Total	230	100.0	100.0	

The so-called "ecological crisis" facing humankind has been greatly exaggerated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	14	6.1	6.1	6.1
	mildly agree	32	13.9	13.9	20.0
	unsure	57	24.8	24.8	44.8
	mildly disagree	71	30.9	30.9	75.7
	strongly disagree	56	24.3	24.3	100.0
	Total	230	100.0	100.0	

The earth is like a spaceship with very limited room and resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	86	37.4	37.4	37.4
	mildly agree	79	34.3	34.3	71.7
	unsure	36	15.7	15.7	87.4
	mildly disagree	19	8.3	8.3	95.7
	strongly disagree	10	4.3	4.3	100.0
	Total	230	100.0	100.0	

Humans were meant to rule over the rest of nature

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	8	3.5	3.5	3.5
	mildly agree	23	10.0	10.0	13.5
	unsure	42	18.3	18.3	31.7
	mildly disagree	53	23.0	23.0	54.8
	strongly disagree	104	45.2	45.2	100.0
	Total	230	100.0	100.0	

The balance of nature is very delicate and easily upset

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	90	39.1	39.1	39.1
	mildly agree	80	34.8	34.8	73.9
	unsure	38	16.5	16.5	90.4
	mildly disagree	17	7.4	7.4	97.8
	strongly disagree	5	2.2	2.2	100.0
	Total	230	100.0	100.0	

Humans will eventually learn enough about how nature works to be able to control it

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	13	5.7	5.7	5.7
	mildly agree	36	15.7	15.7	21.3
	unsure	57	24.8	24.8	46.1
	mildly disagree	63	27.4	27.4	73.5
	strongly disagree	61	26.5	26.5	100.0
	Total	230	100.0	100.0	

If things continue on their present course, we will soon experience a major environmental catastrophe

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	110	47.8	47.8	47.8
	mildly agree	60	26.1	26.1	73.9
	unsure	43	18.7	18.7	92.6
	mildly disagree	11	4.8	4.8	97.4
	strongly disagree	6	2.6	2.6	100.0
	Total	230	100.0	100.0	

L) Conjoint Analysis

Number of Valid Versus Missing Values for Determining the Distribution of Best and Worst Hotel Profile Rank

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
BWRank * Profile	16688	100.0%	0	.0%	16688	100.0%

Frequency Table of the 16 Hotel's Profiles- Ranked Best and Worst

BWRank * Profile Crosstabulation

Count

BW Rank	Profile																Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
best	676	143	23	25	51	518	84	546	29	150	310	706	583	35	282	31	4172
Betw.	325	734	697	338	432	483	658	465	432	762	690	300	429	524	662	413	8344
worst	30	154	317	674	555	27	280	29	593	150	48	48	71	484	101	611	4172
Total	1031	1031	1037	1037	1038	1028	1022	1040	1054	1062	1048	1054	1083	1043	1045	1055	16688

Number of Valid Versus Missing Values for Determining the Distribution of Best and Worst Rank of Stars, Rating, Certification and Price

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Stars * BWRank	8344	100.0%	0	.0%	8344	100.0%
Rating * BWRank	8344	100.0%	0	.0%	8344	100.0%
Certif * BWRank	8344	100.0%	0	.0%	8344	100.0%
Organic * BWRank	8344	100.0%	0	.0%	8344	100.0%
Price * BWRank	8344	100.0%	0	.0%	8344	100.0%

Cross Tabulation of the Importance of Hotel Stars for customers

Crosstab

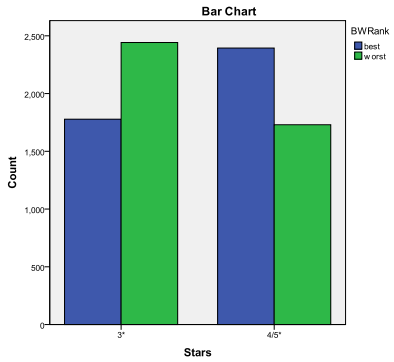
			BWRank		
			best	worst	Total
Stars	3*	Count	1778	2442	4220
		Expected Count	2110.0	2110.0	4220.0
		% within Stars	42.1%	57.9%	100.0%
		% within BWRank	42.6%	58.5%	50.6%
		Adjusted Residual	-14.5	14.5	
	4/5*	Count	2394	1730	4124
		Expected Count	2062.0	2062.0	4124.0
		% within Stars	58.1%	41.9%	100.0%
		% within BWRank	57.4%	41.5%	49.4%
		Adjusted Residual	14.5	-14.5	
Total		Count	4172	4172	8344
		Expected Count	4172.0	4172.0	8344.0
		% within Stars	50.0%	50.0%	100.0%
		% within BWRank	100.0%	100.0%	100.0%

Chi-Square Test to Prove Significance – Hotel Stars

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	211.388[a]	1	.000		
Continuity Correction[b]	210.751	1	.000		
Likelihood Ratio	212.290	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	211.362	1	.000		
N of Valid Cases	8344				

Bar Chart of Hotel Stars



Cross Tabulation of the Importance of Hotel Rating on TripAdvisor for customers

Crosstab

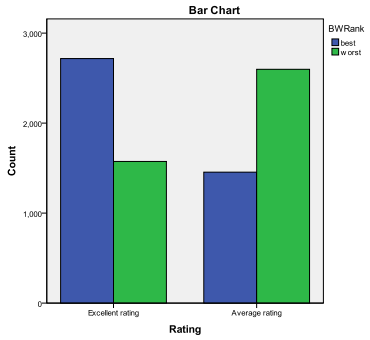
			BWRank		
			best	worst	Total
Rating	Excellent rating	Count	2717	1574	4291
		Expected Count	2145.5	2145.5	4291.0
		% within Rating	63.3%	36.7%	100.0%
		% within BWRank	65.1%	37.7%	51.4%
		Adjusted Residual	25.0	-25.0	
	Average rating	Count	1455	2598	4053
		Expected Count	2026.5	2026.5	4053.0
		% within Rating	35.9%	64.1%	100.0%
		% within BWRank	34.9%	62.3%	48.6%
		Adjusted Residual	-25.0	25.0	
Total		Count	4172	4172	8344
		Expected Count	4172.0	4172.0	8344.0
		% within Rating	50.0%	50.0%	100.0%
		% within BWRank	100.0%	100.0%	100.0%

Chi-Square Test to Prove Significance - Tripadvisor

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	626.804[a]	1	.000		
Continuity Correction[b]	625.708	1	.000		
Likelihood Ratio	634.925	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	626.729	1	.000		
N of Valid Cases	8344				

Bar Chart of Hotel Rating on TripAdvisor



Cross Tabulation of the Importance of Hotel Green Certification for customers

Crosstab

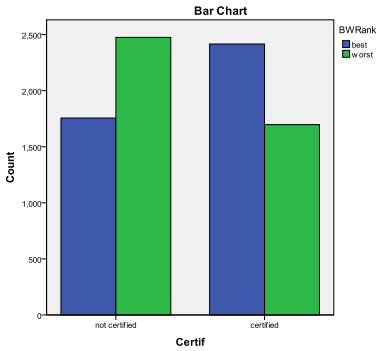
			BWRank		
			best	worst	Total
Certif	not certified	Count	1756	2475	4231
		Expected Count	2115.5	2115.5	4231.0
		% within Certif	41.5%	58.5%	100.0%
		% within BWRank	42.1%	59.3%	50.7%
		Adjusted Residual	-15.7	15.7	
	certified	Count	2416	1697	4113
		Expected Count	2056.5	2056.5	4113.0
		% within Certif	58.7%	41.3%	100.0%
		% within BWRank	57.9%	40.7%	49.3%
		Adjusted Residual	15.7	-15.7	
Total		Count	4172	4172	8344
		Expected Count	4172.0	4172.0	8344.0
		% within Certif	50.0%	50.0%	100.0%
		% within BWRank	100.0%	100.0%	100.0%

Chi-Square Test to Prove Significance – Green Certification

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	247.874[a]	1	.000		
Continuity Correction[b]	247.185	1	.000		
Likelihood Ratio	249.117	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	247.844	1	.000		
N of Valid Cases	8344				

Bar Chart of Hotel Green Certification



Cross Tabulation of the Importance of Hotel Use of Organic Products for customers

Crosstab

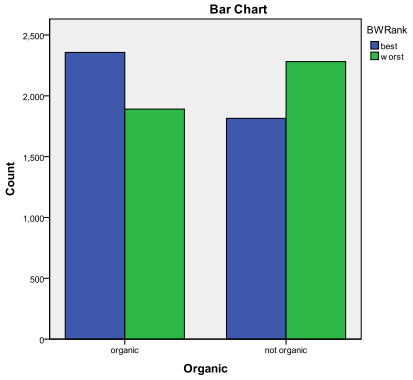
			BWRank		
			best	worst	Total
Organic	organic	Count	2357	1891	4248
		Expected Count	2124.0	2124.0	4248.0
		% within Organic	55.5%	44.5%	100.0%
		% within BWRank	56.5%	45.3%	50.9%
		Adjusted Residual	10.2	-10.2	
	not organic	Count	1815	2281	4096
		Expected Count	2048.0	2048.0	4096.0
		% within Organic	44.3%	55.7%	100.0%
		% within BWRank	43.5%	54.7%	49.1%
		Adjusted Residual	-10.2	10.2	
Total		Count	4172	4172	8344
		Expected Count	4172.0	4172.0	8344.0
		% within Organic	50.0%	50.0%	100.0%
		% within BWRank	100.0%	100.0%	100.0%

Chi- Square Test to Prove Significance – Organic Products

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	104.136[a]	1	.000		
Continuity Correction[b]	103.690	1	.000		
Likelihood Ratio	104.354	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	104.124	1	.000		
N of Valid Cases	8344				

Bar Chart of Hotel Use of Organic Products



Cross Tabulation of the Importance of Hotel Room Price for customers

Crosstab

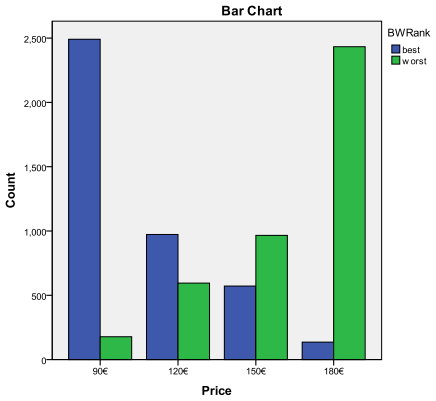
			BWRank		
			best	worst	Total
Price	90€	Count	2491	178	2669
		Expected Count	1334.5	1334.5	2669.0
		% within Price	93.3%	6.7%	100.0%
		% within BWRank	59.7%	4.3%	32.0%
		Adjusted Residual	54.3	-54.3	
	120€	Count	973	595	1568
		Expected Count	784.0	784.0	1568.0
		% within Price	62.1%	37.9%	100.0%
		% within BWRank	23.3%	14.3%	18.8%
		Adjusted Residual	10.6	-10.6	
	150€	Count	572	966	1538
		Expected Count	769.0	769.0	1538.0
		% within Price	37.2%	62.8%	100.0%
		% within BWRank	13.7%	23.2%	18.4%
		Adjusted Residual	-11.1	11.1	
	180€	Count	136	2433	2569
		Expected Count	1284.5	1284.5	2569.0
		% within Price	5.3%	94.7%	100.0%
		% within BWRank	3.3%	58.3%	30.8%
		Adjusted Residual	-54.5	54.5	
Total		Count	4172	4172	8344
		Expected Count	4172.0	4172.0	8344.0
		% within Price	50.0%	50.0%	100.0%
		% within BWRank	100.0%	100.0%	100.0%

Chi-Square Test to Prove Significance – Hotel Room Price

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4250.342[a]	3	.000
Likelihood Ratio	5083.744	3	.000
Linear-by-Linear Association	4243.915	1	.000
N of Valid Cases	8344		

Bar Chart of Hotel Room Price



M) Multiple Linear Regression

List of used Variables

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Price_dich, Organic, Certif_Twisted, Stars_Twisted, Rating[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: BWRank

Test of the R-Value for the Percentage of Correlation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730[a]	.533	.533	.683

a. Predictors: (Constant), Price_dich, Organic, Certif_Twisted, Stars_Twisted, Rating

ANOVA Test - Significance of the Multiple Regression Model

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4451.349	5	890.270	1906.945	.000[a]
	Residual	3892.651	8338	.467		
	Total	8344.000	8343			

a. Predictors: (Constant), Price_dich, Organic, Certif_Twisted, Stars_Twisted, Rating

b. Dependent Variable: BWRank

Coefficients to

Coefficients Test - Details About Individual Predictors

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-1.979	.052		-37.734	.000		
Rating	.507	.016	.253	32.380	.000	.914	1.095
Organic	.235	.016	.117	15.083	.000	.924	1.083
Stars_Twisted	.284	.016	.142	18.213	.000	.923	1.084
Certif_Twisted	.421	.016	.210	26.999	.000	.922	1.085
Price_dich	1.216	.015	.608	80.698	.000	.986	1.014

a. Dependent Variable: BWRank

Collinearity Diagnostics - Testing the presence of Data Error

Collinearity Diagnostics[a]

Dimension	Eigenvalue	Condition Index	Variance Proportions					
			(Constant)	Rating	Organic	Stars	Certif	Price
1	5.576	1.000	.00	.00	.00	.00	.00	.00
2	.130	6.546	.00	.18	.18	.13	.20	.01
3	.122	6.750	.00	.16	.20	.22	.17	.00
4	.091	7.843	.00	.06	.06	.09	.00	.87
5	.064	9.316	.00	.39	.31	.32	.40	.02
6	.017	18.275	1.00	.20	.24	.24	.23	.10

a. Dependent Variable: BWRank