INFLUENCING GUEST BEHAVIOUR TOWARDS SUSTAINABLE HOTEL CHOICE BY DISTRIBUTION CHANNELS

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Abstract
Purpose – The purpose of this paper is to request the attendees of the Tourism and Hospitality Industry conference 2016 and interested academia for more/missed sources, research, insights, and feedback contributing to a better understanding of the subjects value orientations leading towards sustainable hotel choices. Needed for the research where potential hotel guests are nudged to make a green hotel choice by an intervention on an Internet Distribution Channel (IDS).
Methodology – By reviewing literature, desk research, and linking value orientations and customer behaviour theories to technology and communication used in internet distribution channels, a gross set of criteria influencing guests decision-making is explored, where finally the impact of the intervention is measured.
Findings – Through the analysis of the found literature the link between; online customer behaviour, conscious online decision making unconsciously influenced by the general egoistic, altruistic, and biospheric value orientation (Groot, J.I.M. de, & Steg, L., 2007), online hotel communication, and hotel distribution channels, will be displayed as a set of criteria. These criteria are used for the design of an intervention changing elements in hotel distribution channels measuring the numbers of sustainable decisions in a succeeding research.
Contribution – The contribution to the academia is a wide understanding of the influence of technology and communication on consumer hotel booking behaviour. For the industry the knowledge applied can be used to develop their businesses towards sustainability, for the public the researchers hope to increase environmental awareness when making conscious hotel buying decision.
Keywords: Internet distribution systems, sustainability, customer behaviour, value orientations

1. INTRODUCTION

This paper is the start of an extensive research in influencing guest behaviour towards sustainable hotel choice by distribution channels. At first the landscape in which the research is done, is investigated. Forbes Lifestyle webpage stated that two-third of the 1300 travellers, who filled out a questionnaire by TripAdvisor, always consider the environment when booking a hotel room (Bender, 2013). The discussion whether or not the answer was influenced by a social desire to answer in a pro-environmental way (Kaiser, Ranney, Hartig, & Bowler, 1999) is interesting, but not up to the authors to explore. Together with other sources it can be concluded that the general public gets more and more environmentally aware (Barr, Shaw, & Coles, 2011; Delafrooz, Taleghani, & Nouri, 2014 ; Schyns, 2016). The Forbes article also reports on the launch of TripAdvisor's GreenLeader Program and the possibility to book green on the

major online booking sites. When visiting these, it seems that potential hotel guests are not lured to book green hotels, but primarily addressed to their egoistic (hedonistic and gain) values (De Groot & Steg, 2007) e.g. booking sites are more focussing on price and hotels attributes, rather than the social justice or environmental aspects of a hotel stay. Tourism and hotel visits are unsustainable as can be read in the UNWTO Indicators of Sustainable development for tourism destinations (2004). Nevertheless numerous hotels make the effort to become more sustainable and are willing to invest in these challenges.

The objectives of this paper are; 1) to explore by literature which guest type books at a (non-) sustainable hotel, describing a priori their demographics and value orientation on booking hotel rooms, 2) investigation of booking methods that are used booking a (non-) sustainable hotel room; provide a framework for designing an intervention in distribution channels nudging potential hotel guests towards a sustainable hotel choice, and 3) request feedback on our research proposal of the conference attendees.

Figure 1: **Conceptual model**
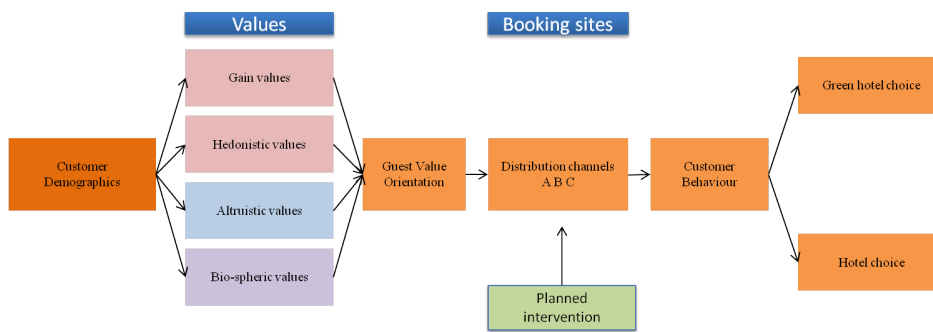
Source: Cavagnaro, van Felius, de Vries, 2016 based upon (De Groot & Steg, 2007) and (Dietz, Stern, & Guagnano, 1998)

2. LITERATURE REVIEW

The literature review explores the main elements and topics discussed in academic papers and books for the proposed research, schematically described in conceptual map (figure 1). The first paragraph discusses sustainability and sustainable hotel choices. Then customer value orientation is explored followed by a short description of travel and sustainable travel. A paragraph on distribution channels, and technology follows. The final chapter of the literature review explores theories about customer behaviour.

2.1. Sustainability

The conceptual model (Figure 1) shows the customer journey focused on values and distribution channels, resulting in choosing a green hotel or not. The elements of the conceptual model are explained in the following paragraphs.

When discussing the aspects influencing potential hotel guests' room choice, it is of vital importance to stipulate sustainability or sustainable development, and clarify what is meant by a green hotel choice.

Sustainability as a concept evolved from different scientific, economic, socio-cultural, and environmental problems (Boley, 2011), where the term "sustainable development" was adopted as the dominant term in the Brundtland Report. There it is defined as "development that meets the needs of the present without compromising the needs of the future" (Brundtland & WCED, 1987). This is identical to the statement of Cavagnaro & Curiel "The ultimate goal of sustainable development is securing a better quality of life for all, both now and for future generations, by pursuing responsible economic growth, equitable social progress, and effective environmental protection. These three dimensions refer to a sustainable society" (2012, p. 1).

A recently published report by the Social Cultural Plan Bureau of the Dutch government claims that people are more and more able to make sustainable choices when consuming goods and services. By exploring this phenomenon they distinguished four major groups of social responsible consuming; 1) consciously not buying (boycotts), 2) consciously buying (buycotts), 3) consciously adjusting your lifestyle e.g. becoming a vegan or decrease your overall consumption, and 4) becoming aware of others (creative culture criticism) whereby through communication, an individual tries to make a difference. In this conscious consuming behaviour, the Social Cultural Plan Bureau found an increase to 33% of the Dutch population making sustainable choices e.g. eating less meat or no meat at all (Schyns, 2016). This report (Schyns, 2016) claims that conscious consumers are overall higher educated but they still differ strong on the level of intensity and characteristics. Also a part of the consumers is in the "red" zone meaning that they do not consciously responsible consume, but merely make their decisions on an economical (money) based orientation.

Green hotels can be best described as hotels that actively follow an environmental friendly strategy, contributing to the natural and cultural environment, enhance and improve social justice, demonstrated through obtaining eco-labels like Green Globe or Green Key (Noor, Shaari, & Kumar, 2014). "A choice for a green hotel is also seen as a conscious choice, and made according to his or her values and preference" (Sheth, Sethia, & Srinivas, 2011, p.27). Usually these aspects of the conscious choice are not recorded by a hotel in their guest profiles, these aspects will be explored later during this research. The effect of these values and preferences are discussed in the following paragraphs. The choice of purchase and use of a hotel room is regarded as private-sphere behaviours (Stern, 2000), and these behaviours have a direct consequence for the environment. Although the choice made by one guest to book a green hotel might have a very small impact on the environment, the sum of these green hotel choices can significantly impact on the aggregate. In other words, if a large group of potential hotel guests are nudged to make a green hotel choice the expected impact on the environment can be substantial (Micheletti, Stolle, & Berlin, 2012).

2.2. Customer

The conceptual model shows a starting point from which the customer behaviour influencing a hotel choice is to be explored. The common way of a priori segmenting potential hotel guests is with demographics (Pesonen, Laukkanen, & Komppula, 2011).

According the extensive study of Diamantopoulos, Schlegelmilch, Sinkovics, & Bohlen (2003), it is complex to make associations between customer demographics and environmental conscious measures. A profile of a complete green customer based upon socio-demographic features (gender, marital status, age, number of children, education, and social class), cannot be given without taking all aspects (knowledge about green issues, attitudes toward green quality, and environmentally sensitive behaviour) of the environmental conscious construct in mind. Nevertheless, research of Dietz, Stern, & Guagnano (1998) have shown weak but reliable associations between the environmental concern and the function of the social structure. However, they have found stronger associations between environmental awareness and concern, and social psychological variables like beliefs, attitudes, and worldviews.

As having discussed in the aforementioned part, the environmental conscious construct aspects (Diamantopoulos et al., 2003) influence the customer behaviour towards the choice of a green hotel. Even so, these aspects themselves are influenced by values as explained by the value, belief, norm model (VBN) (Stern, 2000) (figure 2), where the orientation of one's values, influence the environmental conscious construct (Diamantopoulos et al., 2003) and the value orientation of the goal-framing model (Lindenberg & Steg, 2007). The researchers would like to stress that they are not researching the value orientation of the customer yet, but assume its importance based upon existing research, at this moment. The impact of value orientations will be briefly explained in this chapter.

Gain value, this egoistic value addresses the feeling of winning or not losing, and showing behaviour that ensures this feeling. This value focuses on the middle and long term (Steg & Vlek, 2009) (Lindenberg & Steg, 2007) e.g. the choice of cheap environmentally unfriendly products like a cheap paint instead of a more expensive environmental friendly one. It is believed by the customer that this behaviour leads to more money on the long term.

Hedonic value, this egoistic value addresses the mood of a person. If an individual does not feel like it or will get a bad feeling of acting environmentally friendly, they will not show the behaviour e.g. an extra effort to select the option of only showing environmental friendly hotels on a booking site, or reading a hotels websites' corporate social responsibility page.

Altruistic value, this normative value focuses on the interrelation between humans as a whole, taking being helpful as an example, e.g. taking care of the weak, social justice, a world at peace, and equal opportunity for all (De Groot & Steg, 2007).

Biospheric value, together with past identity, identify the environmental self-identity (Van der Werff, Steg, & Keizer, 2013) provoking environmental intentions (Ajzen, 1991) and environmental behaviour. When having strong biospheric values, one cares for nature and the environment and makes decisions based on the consequences of their actions for nature and the environment, e.g. deciding to bring ones children to school by bike instead of by car.

Figure 2: **A schematic representation of variables in the VBN theory of environmentalism**
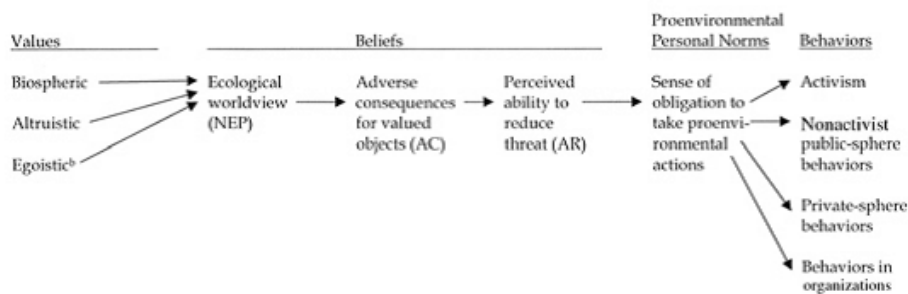
Source: a Arrows represent postulated direct effects. Direct effects may also be observed on variables more than one level downstream from a causal variable.
        b Empirically, measures of egoistic values have been negatively correlated with indicators of environmentalism source: (Stern, 2000, p. 412).

2.3. Travel

According to Leiper (2004), there are five elements identified in the travelling system; 1) the traveller, 2) the traveller-generating region, 3) transit routes, 4) traveller destination regions, and 5) travelling industry. As the travelling system is an open system, interaction between social, cultural, political, economic, legal, technical, and physical environments are relevant. The fifth element is related to "collections of managed organisations in the business of tourism, working together in some degree in marketing tourism and providing services, goods, and facilities" (Leiper, 2004, p. 51). There are three areas of specific interests for the authors here. First, the process of planning the travel and the behaviour of the traveller, also defined as customer, in this. Second, the managed organisations in business of tourism and more specifically, the internet distribution channels. Third, the elements of the interaction of the travelling system with the mentioned environments and how a sustainable travel, can be defined.

According to DestiNet, administrated by Ecotrans, there are currently more than 140 quality labels in tourism worldwide. On a daily basis about two-and-a-half million trips abroad are taking place. While travelling is seen as a positive activity, the impact of tourism is large. Negative effects are seen by heating up the climate due to the use of aircrafts, land and water at the destinations are modified resulting in pressure on the ecosystems, local communities are set aside to promote tourism, and working conditions are unstable specifically for women and children. In order to make the right and most sustainable decision in planning a trip, quality labels are established. Plüss,

Zotz, Monshausen, & Külhaus (2014) indicate that "The greater the extent to which a label takes account of the ecological, social and cultural concerns of the host population, the more it can contribute to sustainable development" (p. 5), which is in line with the statement of Cavagnaro & Curiel mentioned in paragraph 2.1.2 The standards set for the labels are compared with the Global Sustainable Tourism Criteria (GSTC) sections (Plüss et al., 2014). The comparison of labels and identifying them as superior or inferior, is difficult whilst the regulatory frameworks differ per country, and the reliability of a label depends on the type of inspection performed (Plüss et al., 2014). Two global organisations involved in sustainable tourism are next to be discussed briefly.

In 2007 the Global Sustainable Tourism Council was formed as a coalition of 32 partners. "The purpose was to foster increased understanding of sustainable tourism practices and the adoption of universal sustainable tourism principles. In 2008, the GSTC Partnership developed a set of baseline criteria organized around the four pillars of sustainable tourism: effective sustainability planning; maximizing social and economic benefits to the local community; reduction of negative impacts to cultural heritage; and reduction of negative" (Our History - GSTCouncil, 2016). One of the three levels of validation (recognized, approved, or accredited) of an organization can be reached by means of the integrity program, and for each of the levels a specific logo is used (Our History - GSTCouncil, 2016).

United Nations World Tourism Organization is an agency accountable for the promotion of responsible, sustainable and universally accessible tourism. This international organization "promotes tourism as a driver of economic growth, inclusive development and environmental sustainability and offers leadership and support to the sector in advancing knowledge and tourism policies worldwide" (Who we are - World Tourism Organization UNWTO, 2015). Representing educational institutions, private sector, tourism associations and local tourism authorities, UNWTO encourages implementing the Global Code of Ethics for Tourism and promotes tourism as a tool in accomplishing Sustainable Development Goals (SDGs). Build upon the Millennium Development Goals, the 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development, came into force on January 1st 2016, which can be found in Appendix II (Who we are - World Tourism Organization UNWTO, 2015).

2.4. Distribution channels

Before the appearance of the second offline distribution channel in 1775, dependable mail, the hotel reception was the only offline distribution channel present (United States Postal Service, 2016) (Hayes & Miller, 2011). Almost two eras later, the Internet appeared, and from that moment on, the influence of technology on the distribution channels is tremendous. The development of the Global Distribution Channel (GDS) made it possible for travel agents to book besides airline tickets, as well car rentals and hotel rooms (Hayes & Miller, 2011). Hyatt hotels was the first hotel chain developing their own central reservation system (CRS) which allowed travellers to book their hotel rooms at the hotel via Internet. Since the late 1990's, hotels started to explore the possibility to use the Internet for selling their hotel rooms which is referred to as Internet Distribution System (IDS). Hayes & Miller define IDS as "the group of online

reservation systems and travel portals that utilize the Internet to connect travel-related businesses such as hotels with those individuals and companies seeking to buy from them" (Hayes & Miller, 2011, p. 265).

According to Withiam (2011), the electronic distribution channels are used by customers to search and purchase hotel rooms, in which gathering information is mainly done by means of search engines, online travel agents, and other internet sites. The appearance of hotels on the previous mentioned channels, influences the billboard effect of a hotel resulting in a quiet frequent purchase of the hotel room on the hotel's own website. The billboard effect is explained as an effect "in which a hotel's listing on an online travel agent site also promotes sales at the hotel's own website" (Withiam, 2011, p. 9).

One of the outcomes of the study of Xiang et al. (2014), is that an increase is shown from 23.3 percent in 2007 to 35.4 percent in 2013 when it comes to travellers planning their trip by using Internet. Related to the type of websites used for this planning, OTAs were most popular followed by supplier sites and search engines. In line with the increasing popularity is that North American Data Review reported, in research conducted amongst transient business and leisure guests, in the 3rd quarter of 2015, that "bookings through hotel company websites (Brand.com), online travel agents (OTAs) and in-person travel agents (GDS) experienced the most growth" (DeVoren & Kasunich, 2015, p. 1).

The IDS, also referred to as online distribution channels or electronic distribution channels in this paper, can be divided into the following types:

Table 1: **Types of IDSs**

Internet Distribution System (IDS)	Definition
Third-party Internet site (TPI)	"Those operated by a variety of travel intermediaries not directly controlled by a hotel" (Hayes & Miller, 2011, p. 289).
- Referral site (part of TPI)	"A webs site that searches for and reports information on other web sites. Also known as scrapping site or meta search site" (Hayes & Miller, 2011, p. 291).
- Agency model (model of TPI)	"An arrangement in which a hotel pays a commission to an intermediary for selling its rooms" (Hayes & Miller, 2011, p. 289).
- Merchant model (model of TPI)	'A system in which an intermediary obtains rooms inventory at a wholesale rate and then acts as a merchant by selling the rooms to buyers at retail rates" (Hayes & Miller, 2011, p. 290).
- Opaque model (model of TPI)	"A system in which the room buyer does not know the name of the hotel they have chosen until after they have committed to the purchase price of the room" (Hayes & Miller, 2011, p. 293).

Internet Distribution System (IDS)	Definition
• Auction (format of Opaque)	Guests do not know at which hotel they end up (Hayes & Miller, 2011).
• Bid (format of Opaque)	The guest names its own price for the room and knows the name of the hotel (Hayes & Miller, 2011).
Web 2.0	"The term commonly used to describe social-networking sites, video sharing sites, blogs, tweets, and ever-changing other Internet sites providing consumer generated media (CGM)" (Hayes & Miller, 2011, p. 295).
Property website	"A web address whose content is 100 percent controlled by a hotel's own management team" (Hayes & Miller, 2011, p. 287).

The five online top channels used by travellers are OTAs (TPI), destination marketers, meta search (Referral site), hotel's own website (Property website), and search sites (Referral site) (Withiam, 2011). The table in Appendix II shows a selection of examples of IDSs for which the authors acknowledge that the list is incomplete but the focus here lies on the most frequently used examples of IDSs.

One of the TPIs are the Online Travel Agencies, and the two largest brands controlling the OTA market are Expedia and priceline. Recently, Expedia acquired Travelocity and Orbitz, and is the owner of hotels.com. Priceline owns the ample player in the OTA market: Booking.com (Gaggioli, 2015) (Team, 2014). From the customer perspective, OTAs have developed themselves from simply being a booking tool for a hotel room, to "marketing engines, search engines, booking engines, and execution platforms for customers" (Carroll & Sileo, 2014, p. 6). From the hotels perspective, OTAs "can be an effective tool to: preserve market position, extend search marketing, meet consumer demand for packaged and spontaneous travel, support yield management, and execute integrated marketing strategies" (Carroll & Sileo, 2014, p. 6).

Another TPI is the Referral site, also identified as the meta search site. According to Inversini & Masiero (2014), online reviews are not only an important marketing tool but travellers include the reviews in their decision process, and in the end therefore affect the room sales as well as creating a sense of trust for the customer concerning the hotel they book. Meta search engines provide customers the opportunity to compare prices and locations to stay, in a convenient way. This information helps the traveller in the pre-planning of a trip and therefore is related to the customer buyer behaviour. According to their study, Xiang, Fesenmaier, & O'Leary (2014) found an increase in use of this engine with almost 50% in a timeframe of 2007 to 2012.

As mentioned by Xiang et al. "Now with Web 2.0 technologies the Internet has changed from a 'publishing-browsing-platform' to 'participation-interaction-platform" (2014, p. 5). Inversini & Masiero, refer in their article to the statement of Filieri & McLeay (2013) that the use of social media by the hospitality industry is important in engaging with prospective customers as well as influencing the buying behaviour of customers. As mentioned at the referral site (meta search site), that online reviews need

to be included in the marketing strategy, Inversini & Masiero identify the same effects for social media. The difference between the referral site and social media lies in the relationship which can be maintained via social media sites, and in the end give the hotel a better insight in the buying behaviour and the decision-making process of the customer. (Inversini & Masiero, 2014) Xiang et al. support this statement by indicating that research shows that "travel-related social media now significantly influences travel information search and sharing behaviour, and consequently, mediates the way travellers perceive and interact with travel products and tourism destinations" (2014, p. 10).

According to Kok Li-Ming & Boon Wai (2013) "Consumers who are interested in making a hotel room reservation online can use two different methods to make their reservations. They can either reserve the hotel room via hotel official websites or a third party hotel websites. Hotel official websites is a form of distribution channel where hotels used to market and sell to their consumers" (p. 6). "Past researches exposed that hotel official websites were ineffective in reacting to consumers' wants and needs for online transactions. Schmidt et al, found that hoteliers' were not keen in creating more effective websites as OTA were doing a good job in selling their rooms online and hotel revenues continue to generate from these OTA. On top of that, hotels had to compensate commissions to OTA for selling their rooms and this might disturb the existing sales and lower their revenues from the OTA" (Kok Li-Ming & Boon Wai, 2013, p. 7).

In the search for sustainable distribution channels, there currently appear to be two sustainable TPI-OTAs namely GreenHotelWorld and BookDifferent, one sustainable TPI-Referral site which is TripAdvisor GreenLeaders Program, and one sustainable Web 2.0 channel: Bennu.

GreenHotelWorld has a partnership with Expedia and offers the possibility to book a green hotel. The hotels listed are selected by a green rating algorithm listing based upon the hotels certified green practices. Once a booking with GreenHotelWorld is made, GreenHotelWorld pays for the customer's CO_2 emission at no additional costs and takes for this 26.6 kg CO_2 per overnight stay in account (GreenHotelWorld - We offset your CO_2, 2016). BookDifferent is a hotel booking site where one can book a green hotel and support a charity once the hotel is booked. In this way, a more sustainable way of travelling is supported in a twofold way: the destination selected shows all the hotels available for that moment including the icons indicating whether a hotel has an eco-label, the carbon footprint per room per night. Furthermore, the amount to be donated once the booking is done, is shown. This is on average 50% of the commission amount received for the booking. BookDifferent is part of Booking.com and therefore part of priceline.com (BookDifferent - About us, 2016).

TripAdvisor GreenLeaders Program identifies a hotel as being sustainable by means of the leaf indicating that the hotel belongs to one of the possible statuses (bronze, silver, gold, or platinum) of this program. For the setup of this program the United Nations Environment Program, amongst others, is used as a basic.

Bennu states on their website to be the leader in green social media marketing. Their name originates from "the Bennu bird as being the Egyptian equivalent to the Greek Phoenix, which represents rebirth" (Bennu - Our Story, 2016). Furthermore, "the company Bennu exists to promote a greener new lifestyle for a society that has long taken for granted environmentally harmful ways" (Bennu - Our Story, 2016).

2.5. Technology

Chan & Guillet (2011) are mentioned in the article of Inversini & Masiero (2014), that the use of new technologies can increase the interaction with prospective guests for marketing and selling process. In the end, the technological innovations are vital in order to succeed and compete in the hospitality market. (Inversini & Masiero, 2014). The result of the innovations in the ICT area are, as Inversini & Masiero refer to Kracht & Wang (2010), "the advances of ICT have not reduced the number of 'middle men' in the hospitality distribution funnel but rather resulted in an increasingly complex array of intermediaries. This is leading to so-called multichannel management" (Inversini & Masiero, 2014, p. 281)

Internet has changed the travel distribution landscape in which the main benefit is the direct route to the customer. Efficient and effective satisfaction of the customer's needs are the highest priority for hotels while the business to customer market shifts more and more to the online distribution channels, which requires creating trust. Furthermore, ICT has a high impact on the customer's knowledge, attitude, and behaviour (Hassandoust & Farzaneh, 2011).

2.6. Customer behaviour

According to Nelson (1970), vacations or hotel stays are high in experience qualities, meaning that they can be perceived only after consuming the product or during the production of the service. It makes it hard for a potential hotel guest to make the "right" decision before hand.

When observing consumer behaviour, and more specifically the process of the consumer life cycle, the consumer choice is the first step. This consumer decision-making process consists of four different stages. First, need recognition e.g. Maslow hierarchy of needs. Second, information search, seeking information about a service or a product is a way of risk reduction; it helps customers feel more secure about the decision they are about to make. Two types of sources can be distinguished searching for information on services or goods: non-personal such as websites and mass media, and personal such as friends or experts. When searching for experiences like a hotel stay consumers are more likely relying and seeking for personal sources (Zeithaml, Bitner, & Gremler, 2006). Third, Evaluation of alternatives; when collecting and evaluating experience qualities, potential hotel guests may simply choose the first acceptable product or service rather than fully analyzing all possible alternatives. Due to the vast amount of sources on the Internet, the set of alternatives has increased massively, especially in the hotel business, where potential hotel guests can find multiple alternatives for their selection of needs for a stay (Kotler et al., 1993; Lee et al., 2010). Finally, purchase is the actual choice for the hotel stay. These steps in

consumer choice are followed by the consumer experience and post-experience evaluation (Zeithaml et al., 2006).

3. RESEARCH PROPOSAL AND PLANNED INTERVENTION

This paper proposes a research towards an intervention nudging potential hotel guests towards a green hotel choice. This intervention will be designed to nudge guests towards a more altruistic or biospheric value orientation. Before we can design an intervention based on activating these values, the status quo of green hotel choices need to be explored. This first exploration is linking existing value orientation to the buying decision of the hotel guest. Two hotels "Stenden Hotel" and "Casa400" are willing to participate in these first explorations, which are qualitative of nature. Both hotels have shown that they are sustainable by obtaining the Green Key Gold certificate. The goal of this first step is the exploration of attributes fostered by altruistic and biospheric values that made hotel guests choose for a sustainable hotel. Step two in this research will be an exploration of the different possibilities of booking a hotel room, via IDS, hotel websites and by personal contact with the hotel (telephone, email, walk-in), and an analysis of the number of green choices made by hotel guests in the Netherlands. The focus of this research will be on the IDS, since the positive effects of increasing green hotel choices on the environment are expected to be found with the growth of IDS usage (DeVoren & Kasunich, 2015).

The final step is the analysis of the results of the intervention, the alteration of an IDS website steered by the qualities researched in previous steps, the number and the reasoning or stated differently, a more altruistic or biospheric value orientation when choosing a (green) hotel.

4. CONCLUSIONS

Research shows that hotel guests become more and more environmentally aware (Kaiser et al. 1999). On the other hand hotels are putting effort in greening their distribution, buildings, purchasing and operations (Felius & Cavagnaro, 2014). When the customer and the supplier try to show the same set of environmental behaviour aspects on the market place, in this case the IDS, the marketplace should foster this pro-environmental behaviour by addressing to the altruistic and biospheric value orientation (Steg & Vlek, 2009; Stern, 2000) in order to nudge customers making green hotel choices. The amount of guests that do not consciously choose for a green hotel can be persuaded by the IDS website to make a conscious decision, green or not.

This paper proposes a research on a planned intervention; this intervention is steered on values and value orientation, that according to the VBN theory (Stern, 2000) influences beliefs and behaviour. The analysis of the way potential hotel guests use IDS for their orientation phase (Kotler, 2014) when making a decision to buy, needs to be obtained to design an intervention, which is based upon hedonistic and biospheric values. The authors kindly request the attendees and interested academia for more/missed sources, research, insights, and feedback contributing to a better understanding of this material.

5. LIMITATIONS AND FURTHER RESEARCH

Although the discourse on behaviour and sustainability is relatively large, a study in the field of the impact of altered booking sites on sustainable hotel choices by hotel guests has not been conducted. For hotels it is not yet of commercial interest to measure the value orientation steering hotel guests towards a (green) hotel choice. That is why the first step in this research is done in the Netherlands, focusing on post-hoc segmenting the Dutch domestic hotel visitor on their value orientation. It will probably result in a small sample; this is therefore a possibility for further research. An international study on the impact of nudging potential hotel guests towards a more altruistic or biospheric value orientation is recommended, because a first assessment of communication of IDS reveals a hedonic or egoistic (gain) oriented approach.

APPENDICES

Appendix I

Table 2: **17 Sustainable Development Goals**

Goal 1	End poverty in all its forms everywhere	Goal 10	Reduce inequality within and among countries
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 3	Ensure healthy lives and promote well-being for all at all ages	Goal 12	Ensure sustainable consumption and production patterns
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Goal 13	Take urgent action to combat climate change and its impacts
Goal 5	Achieve gender equality and empower all women and girls	Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 6	Ensure availability and sustainable management of water and sanitation for all	Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all	Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Goal 17	Strengthen the means of implementation and revitalize the global partnership for sustainable development
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		

Source: (World Tourism Organisation UNWTO - Press release, 2015)

Appendix II

Table 3: **Examples of IDSs**

Name	Brand	IDS type
Hotels.com	Expedia Inc	TPI - OTA
Travelocity	Expedia Inc	TPI - OTA
Orbitz Worldwide	Expedia Inc	TPI - OTA
Expedia	Expedia Inc	TPI - OTA
Venere	Expedia Inc	TPI - OTA
Classic Vacations	Expedia Inc	TPI - OTA
Agoda.com	Priceline Group	TPI - OTA
Booking.com	Priceline Group	TPI - OTA
priceline	Priceline Group	TPI - OTA
BookDifferent	Booking.com	TPI - OTA
GreenHotelWorld	GreenHotelWorld (Partner with Expedia)	TPI - OTA
trivago	Expedia Inc.	TPI - Referral site
KAYAK	Priceline Group	TPI - Referral site
TripAdvisor	TripAdvisor, Inc.	TPI - Referral site
TripAdvisor GreenLeader Program	TripAdvisor, Inc.	TPI - Referral site
Facebook	n.a.	Web 2.0
Twitter	n.a.	Web 2.0
LinkedIn	n.a.	Web 2.0
Pinterest	n.a.	Web 2.0
Google+	n.a.	Web 2.0
Tumblr	n.a.	Web 2.0
Instagram	n.a.	Web 2.0
VK	n.a.	Web 2.0
Flickr	n.a.	Web 2.0
YouTube	n.a.	Web 2.0
BennuWorld	n.a.	Web 2.0

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