

# BOOK OF ABSTRACTS

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## PARALLEL SESSION 5

### CONTRIBUTIONS TOWARDS THE ADOPTION OF CIRCULAR ECONOMY IN THE HOSPITALITY INDUSTRY: CONSUMER AWARENESS AND PREFERENCES

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#### Extended Abstract

##### Abstract

The characterization of consumer awareness and behaviour towards sustainability issues is an important contribution to the widespread adoption of Circular Economy practices. Focusing on the Hospitality Industry, an exploratory survey was conducted in Oporto city to domestic and foreign tourists using a questionnaire, which produced 203 valid responses. Preliminary findings indicate that consumers are willing to accept green and circular practices in their hotels of choice. Moreover, participants showed to be concerned about future generations and referred valuing dedicated sustainability practices. To conclude, based on generation and age, the main Circular Economy practices that most influence the consumers' decisions and choices were identified and ranked.

**Keywords:** Sustainability; Circular Economy; Consumers' Behaviour; Green Practices; Hotel Industry; Tourism.

#### 1 Introduction

Current society is continuously being pushed to increase consumption and to raise product and service demand. However, in a finite world, resources are becoming scarce and environmental problems are growing, thus creating higher resource dependency and climate changes. As a result, the traditional model of linear economy, based on extraction-transformation-utilization-disposal (Ellen MacArthur Foundation, 2012) is no longer efficient or sustainable for the standard consumption, since our planet takes almost one and a half years to regenerate what is used in one year (Antikainen et al., 2015). Considering the consumers' concerns about environmental changes and degradation (Shen & Zheng, 2009), current hotel industry should be receptive to future changes of consumer behaviour, not only by sustainability aware customers, but also by management decision. There is a need to move towards a sustainable and greener tourism (Chengcai et al., 2017) and, as some authors defend, such an innovative approach and model, "which incorporates the principles of the circular economy - reuse, reduce, recycle" should be applied to all industries, including tourism and hospitality industry (Julião et al., 2019; Nedyalkova, 2018).

On what refers the hospitality industry, as one of current largest water and energy consumers (and even a greater producer of waste), there is an evident need for new alternatives to develop waste management, water savings and energy conservation (Verma & Chandra, 2018b). As a result, even though the appearance of Circular Economy (CE) in the hospitality industry can be seen as a solution to solve resource scarcity, the lack of studies approaching the connection of these two subjects is visible.

The purpose of this paper is to explore consumers' awareness towards CE and sustainability-oriented practices in hospitality industry, in order to discover their motivations and connections between their intention and attitudes. The goal is to identify findings that motivate hotel managers to move from linear to circular tourism. To support this study an exploratory survey was conducted in Oporto city to domestic and foreigner tourists using a questionnaire, which produced 203 valid responses.

## 2 Literature Review

### 2.1 *Circular Economy as a model towards Sustainable Development*

In order to achieve sustainable development, leaders are aware of the efforts that need to be done to such end. Changing consumption and production patterns in order to get natural resources' efficiency, while reaching for economic and social development, requires a radical, transformational and systematic change of the companies' business models (Preston, 2012).

As a result, CE appeared as a sustainable development strategy that successfully contributes to achieve all the three dimension of sustainability, economy, environment and society (Murray et al., 2015), tackling the crucial challenges of environmental destruction and resources scarcity (Korhonen, et al., 2018), reusing and recycling materials, maximizing all energy, reducing waste and regenerating value from it while being sustainable (Heshmati, 2018).

Currently, CE is closely related to one of the UN's Sustainable Development goals, which aims to reach a resource's use efficiency and pollution reduction, looking for the whole life of the goods (Brightley & International Institute of Gastronomy, Culture, 2017; Wit et al., 2018). On what regards to the CE's environmental objective, there is a focus on reducing virgin material, energy inputs, waste and emissions of the production-consumption system by applying long-lasting and biological materials with access to renewable energies.

Economically, the CE's objective is to create higher value from the production-consumption system and reduce material and energy costs while being innovative, creating new alternatives and opportunities for a new market and new businesses (Korhonen et al., 2018). Therefore, environment and economics are closely related, and CE came to improve the relationship between both, otherwise, if the environment is forgotten we create again a linear economy model (Brightley & IGCAT, 2017; da Cruz, 2017; Heshmati, 2018). Accordingly, CE is inter-connected with the 3R principles, reduce, reuse and recycle (da Cruz, 2017; Ghisellini, Cialani, & Ulgiati, 2016; Heshmati, 2018), highlighting the connection between environment and economics, where environment is the major supplier of the economy by providing the natural resources and energy as the main source of productivity and utility (da Cruz, 2017).

As referred before, CE practices have a higher potential to approach environmental and growth challenges related to overconsumption, overproduction and waste increase, globally and locally (Schroeder, et al., 2019). As a common problem for all businesses, hotels are also fighting to reduce the negative impacts imposed by the linear model (Bohdanowicz, 2003), being pressured by regulations and legislation to implement sustainable strategies, mainly towards the environment (Berezan, Millar, & Raab, 2010). As a result, this research embeds, therefore, the adaptation of CE practices on hospitality industry and their acceptance by travellers and consumers.

## *2.2 Green Hotels and Practices*

Green hotels, eco-friendly hotels, ecologically friendly hotels are also known by various authors as, environmentally friendly lodging properties that perform, green methodologies, responsible operations and ecological programs. They aim to conserve the nature, promote conservation, recycling and energy efficiency, decreasing operational costs, thinking in future generations' protection while, providing consumers healthy, hygienic, sustainable and clean products (Millar et al., 2008; Verma & Chandra, 2018b, Verma & Chandra, 2018a, Verma & Chandra, 2018c). It is known now as an important concept that develop the hospitality industry to move toward a more sustainable development and a crucial reason for travellers' hotel choice (Chengcai et al., 2017; Verma & Chandra, 2018a).

As an approach to sustainability, it is possible to interrelate green tourism with CE since both practices are eager to put into practice alternatives for waste reduction, recycling, energy and resources saving whilst reducing operation costs. Moreover, both concepts incorporate and involve all the three dimensions of sustainability (Millar et al., 2008; Schroeder et al., 2019) and require a balance between innovation, technology and new business models (Brightley & IGCAT, 2017).

As referred before, "green or eco-friendly practices in the accommodation sector are growing around the world and conscious customers are demanding these services" (Londoño & Hernandez-Maskivker, 2016). As a growing trend, the purpose of this research is to analyse the consumers' acceptance of green practices that can be applicable to the hotel industry.

Green practices are procedures that can be adaptable by the management teams on hotels, in order to decrease the negative impacts on earth (Yusof, Jusoff, Ibrahim, & Awang, 2017), fighting mainly, energy consumption, water excess and waste management (Kang, Stein, Heo, & Lee, 2012).

Using non-polluting soaps (Han, et al., 2011) or refillable shampoo containers (Verma & Chandra, 2018b), installing energy efficient lighting to conserve energy, switching incandescent lights for LED (Ogbeide, 2013; Ruben & Tourism, 2001; van Rheede, 2015), are examples of green practices that have the same focus as CE, and can create environmental impact whilst increasing travellers' attention to conserve and protect (Kang et al., 2012).

## *2.3 Hospitality Consumers*

As main enablers, customers play an important role when deciding to adopt CE practices. Therefore, it is important to study their acceptance and the advantages that they can bring (Antikainen et al., 2015). In consumers optic, when hotels are applying green practices or CE's methodologies, market demand grows side by side with customer satisfaction (Han et al., 2011).

Current consumers are looking for new practices and new models, getting more interested in green and circular practices. For this reason, applying CE will create added value, comparing to conventional alternatives, influencing travellers' decision-making (Antikainen et al., 2015).

As referred before, hotels guests split their conscious between cognitive and emotional aspects (Bradburn et al., 2014; Conraud-Koellner & Rivas-Tovar, 2009) for this reason, some authors highlighted that hotel guests feel emotional advantages when applying for a green hotel. These emotional benefits can be expressed with a feeling of self-expression, awareness about the next generations or even by an altruistic behaviour where the environment is the main concern (Han et al., 2011).

When applying CE, consumers have access to improved products and services, where durability and longevity increase (European Commission, 2015) and as a consequence, improving the relationship between consumers and businesses, moving to a service model based on convenience, durability and quality (Standard, 2017).

### **3 Research Methodologies**

In the current exploratory study, a survey was developed to characterize consumer awareness and preferences towards sustainability issues on the Hospitality Industry. Previous to planning the final questionnaire, there was a need to clarify which subjects should be addressed and that would be better accepted by consumers. Following the literature review, dedicated reference social media was analysed and street interviews were conducted to help designing the final questionnaire.

On what concerns the sample definition, as current study is of a qualitative and exploratory nature, there is no need to predefine the sample and determine the number of answers (da Cruz, 2017; Gray, 2017). However, it was established a minimum of 200 answers, similar to other study related to circular economy (da Cruz, 2017) or to consumers' perceptions about green hotels (Millar et al., 2008).

The questionnaire was applied online through social networks as a way to address a larger group with different ages, backgrounds and beliefs. Throughout the process, a smaller sample of questionnaires were conducted face-to-face to compare the two different approaches. This allowed inferring about eventual biases in some of the questions and complement with qualitative data.

The final questionnaire was designed in two main parts: sociodemographic questions and consumer preferences and awareness questions. The sociodemographic questions were essential to get detailed data from participants (Gray, 2017), whilst the main questions were based on the literature review or adapted from similar studies. Most questions were based on a sustainability study conducted in Portugal in 2016 (Schmidt et al., 2016) as well as in a study based on consumers' preferences for green hotels (Millar et al., 2008) to allow for comparing consumer's perceptions in current research.

This exploratory survey was conducted in Oporto city to domestic and foreign tourists in 2018/2019.

### **4 Main Results and Discussion**

Current hospitality industry operators are well aware of the need to value green practices in their business model, as the customers' environmental consciousness positively influences green consumer behaviour. To such end, it shows to be relevant understanding to what extent the consumers are actually willing to follow the hotel industry's path of ecological consumption.

Furthermore, it is important to understand which use of resources is made in a more responsible and sustainable way by the hospitality industry, thus allowing consumers to become eco-friendly tourists that "participate to undo the damage created by tourism activities to the environment" (Verma & Chandra, 2018a).

In current exploratory survey, conducted in Oporto city to domestic and foreign tourists using a questionnaire, which produced 203 valid responses, it was possible to gain further understanding of current consumers' awareness towards CE impacts in the Hospitality Industry.

Based on those results, it was realized that almost all participants referred being familiar not only with the concept of «environmental sustainability» (96%), but also with «eco-friendly products» (93%). Other sustainability-related concepts were mentioned by the respondents as being familiar to them, e.g. «eco-efficiency» (67%) or «eco-design» (53%). A group of remaining sustainability-related concepts showed to be less known by the respondents, with the «Circular Economy» concept mentioned to be the less known to the interviewees.

When asked about some CE initiatives in the hospitality sector, the respondents highlighted their preference for «national products», directly followed by «produce less with less negative impacts on environment» and «give priority to the local economy and products».

In this group of interviewees, when analysing in more detail to the correlation of each statement with the respondents' age, one can conclude that the youngest generation (18-24 years old) value more giving priority to the local economy and products. On the other hand, the 25-35 years' generation showed to be the one that was most worried about the negative impacts on the environment. It was also observed that the respondents' last two generations (44-60 years and 60+) did value as most the use of national products as sustainability practices in a CE model.

To conclude, it was possible to recognize in current survey that society, independently of the generation, is able to recycle and reuse, probably due to the simplicity of the process and the solutions that are provided and made available by sustainability aware hospitality industry. These aspects were derived from the questionnaire based on the adoption of some of the activities that are present in society's daily life into the green hotel practices.

## 5 Summary and Conclusions

Consumers' perceptions of Circular Economy in the hotel industry were identified and analysed in a survey of exploratory nature.

With the aim to identify consumers' sustainability-related preferences that can motivate hotel managers to move from a linear to a CE model in the hospitality industry, a dedicated research was conducted in the Portuguese city of Oporto. A sample of 203 valid responses of domestic and foreign touristic consumers was collected using a specially designed questionnaire.

Results of this exploratory study offered insights into the determinants of consumer behaviour regarding CE practices in the hospitality industry based on the respondent's generation and age.

This survey allowed concluding that hospitality consumers are aware and eager to adopt sustainability solutions in order to promote related CE practices.

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