Máster Universitario en Economía del Turismo, del Transporte y del Medio Ambiente

Social Responsibility as a tool for Destination Competitiveness
(Responsabilidad social como una herramienta para competitividad de los destinos)

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Fdo.:

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I. INTRODUCTION

The overall number of international arrivals has grown an average of 4.1% a year during the last ten years (UNWTO highlights, 2014). During the same period, the number of new competing destinations has been also growing at a fast pace. Therefore, one of the crucial challenges for modern tourist destinations is to identify and implement new competitive advantages (Crouch and Ritchie, 1999; Zhang, H., et al, 2011; Enright and Newton, 2004, 2005; Gomezelj and Mihalič, 2008).

In this context, a growing number of Destination Managemnet Organizations (DMOs) and private tourist corporations have started to focus their management efforts in implementing different social responsibility's (SR) actions as a way to increase destinations competitiveness (Carroll, 1991; Mackey and Mackey, 2007). For instance, one of the largest tour operator TUI Travel PLC have decided to explicitly internalize the impacts of its operations on the environment and local communities by implementing, monitoring and managing a detailed accountability of SR actions (Coles et al, 2013).

In this paper we propose the use of a Discrete Choice Experiment (DCE) in order to measure potential gains in destination competitiveness while undertaking Social Responsibility (SR) policies. Using DCE allows us to calculate consumers Willingness to pay (WTP) for implementing different SR actions. There are at least three main advantages of using WTP as a measure of tourist preferences for SR. First, it provides a useful information for decision makers about how strong are the values that visitors attach to a SR policy. Therefore, it may be useful to inform pricing strategies for such products. Secondly, WTP measures can be employed as an important input in economic evaluations (e.g. cost benefit analysis), since it can be easily compared with the monetary costs of implementing social responsibility actions. Finally, WTP assessments are an appropriate instrument to make relative comparisons and rankings of the desirability of goods or services (Hole and Kolstad, 2012).
The results show that efficiently communicated destinations' SR actions may play a relevant role in tourists' decision of where to travel. Thus, there is some room for DMOs to significantly improve their market shares by correctly adopting and efficiently communicating specific SR actions. In particular, it is estimated that on average tourists are willing to pay a premium of 5% on top of current prices if the destinations they are travelling to performs particular SR policies. Visitors ranking of most valued SR dimensions were 1) labour conditions; 2) environmental conditions; 3) cultural activities for the community members.

The rest of the dissertation is organized as follows, section 2 reviews the existing literature on defining and measuring social responsibility at a corporation and at a destination level. Section 3 describes the DCE methodology employed to evaluate the proposed actions. Finally section 4 presents the main results and some discussion and further research.
II. THEORETICAL FRAMEWORK

2.1. What is Social Responsibility (SR)

According to McGehee et al (2009), “SR may be defined as an overall ethic or vision that implies the need for businesses to contribute back to the communities and markets that have made them successful”. Although the history of social responsibility and philanthropy started from 17th century, when companies first faced the public pressure of the awareness for the impacts of corporations on the environment, the modern era of SR probably started with Bowen’s publication of “Social Responsibilities of Businessman” in 1953 (Inoue and Lee, 2011).

Inoue and Lee (2011) uses SR as a term which collects various voluntary activities adopted in a company, such as advanced human resource management programs, the reduction of environmentally dangerous substances, philanthropic activities, the support of local businesses and the production of products integrating social attributes.

Various industries hence are now adopting SR responsible activities in order to satisfy their customers’ demand, which are concerned with SR issues. Coles et al (2013) goes along with this statement and emphasized the idea for responsible modes of production and consumption. However, taking into account firms' financial performance, the question therefore arises how the investment in socially responsible activities affects company. Moreover, Inoue and Lee (2011) asked “whether or not the companies, actively involved in SR initiatives, outperform the firms that do not demostrate the same degree of social involvement”. Correspondingly, the same authors literally answered these questions by proposing several ideas investigated by earlier scholars, which idetintified SR as a source of competitive advantages that positively affects various aspects of firms performance, such as reputation, consumer satisfaction, attractiveness of a firm as an employer and organizational commitment among employees.

2.2. SR measurement
In spite of the growing attention to SR issues in the tourism sector, there is still some controversy regarding how to define and measure SR actions and their influences on corporations goals. Martínez et al (2013, pp. 366) argue that all the methodologies proposed in the literature have serious limitations, and therefore further research is necessary to improve the quality of such measures.

Maigan and Farrel (2000) classified existing SR measurement methods into three approaches: (a) expert evaluations, (b) single-issue and multiple-issue indicators and (c) surveys of management. The first category of empirical investigation to evaluate social responsibility is based on the information provided by the experts of the businesses, society area or the industry. (Maigan and Farrel, 2000, pp. 285)

Martínez et al (2013), proposed an extension of Maigan and Farrel (2000) classification. It does account for the following aspects: (1) reputation indices or databases; (2) single and multiple-issue indicators; (3) content analysis of corporate publications; (4) scales measuring SR at the individual level; (5) and the scales measuring SR at the organizational level (Turker, 2009; Martínez et al, 2013). However, in this study we want to maintain consistency with the use of KLD data employed in previous relevant works (Inoue and Lee, 2011), therefore we will employ the first aspect -reputation indices or databases-.

**Objective measures**

In order to assess which specific companies behave responsibly towards the environment and the society, many empirical studies have used Fortune index ratings, e.g., Berman (1999). This index is mainly based on the intensive use of experts’ opinions through rating scales of several SR actions in large corporations.

However, since the Fortune index is a somewhat subjective measure based on experts’ evaluations, some researchers have claimed the superiority of objective indicators. For instance pollution control index (published by Council of Economic priorities) or corporate criminality (Maigan and Farrel, 2000, pp. 285). These approaches only use a single dimension to measure SR. As a consequence, some
scholars have proposed the use of multi-dimensional measures in their analysis (Maigan and Farrel, 2000). For example Backhaus et al (2002) collected data from 297 undergraduate business students and also included the sample drawn from Fortune index.

Likewise, given Inoue and Lee (2011) proposed method, SR measurement includes Clarkson (1995) approach, which states that SR can be better assessed by a stakeholder framework that evaluates the companies relationship with their primary stakeholders. Respectively, the latter stakeholder group includes shareholders/owners, employees, suppliers, customers, and public stakeholders such as community or the natural environment. For example Maigan and Ferrell (2004) as well as Smith (2003) incorporated stakeholder theory to suggest that SR prescribes the responsibility of corporation to meet or exceed the norms of various stakeholders, which in turn dictates desirable organizational behaviours (McDonalds, 2006).

Robson and Robson (1996) as well as Sautter et al (1999) distinguished the primary stakeholder group, which included employees, tourists, local business suppliers, community residents, government and the environment. Consistent with ´stakeholder theory´ concept, and assuming it as an important part of objective measure, some of the recent studies have examined the influence of separate SR dimensions on different sectors. (Table 1)

One of them was done by Berman (1999), who measured the link between each of the KLD categories and accounting-based financial performance on a stakeholder context. Since authors of the study implemented two implicit models, the obtained results were significant only from the first’s model’s perspective and showed that only two of five variables – employee relations and product quality, strongly affects company’s financial performance and hence improves profitability. However community, diversity, and the environmental dimensions showed insignificant level of the impact on firm financial performance.

In contrast, Backhaus et al (2002) showed, that differently than in previously reviewed study, the environmental issues, diversity and community relations dimensions are
highly significant to potential employee group. Based on the ‘Stakeholder theory’, ‘Signaling Theory’ and ‘Social Identity Theory’, authors measured the attractiveness of CSP’s (corporate social performance’s) influence for a job seekers’ which in turn has been recognized as having a high influence on a firm’s image, which is highly valuated between potential job candidates. Ultimately, Backhaus et al (2002) demonstrated, that firm’s involvement into SR activities improves overall corporate’s image not only from societal-concerned people perspective, but also for potential job seeker’s group.

Hillman and Keim (2001) tested the relationship between shareholder value, stakeholder management and social issue participation. Authors demonstrated that only one dimension – community relations, have a positive relationship to financial performance, while other dimensions were found as having insignificant or negative impact on corporate’s financial performance. The explanation of such findings is simple – the use of a firm’s financial resources always has an opportunity cost. (Hillman and Keim, 2001, pp.136) By implementing various philanthropic and charitable strategies into firm’s activities, the cost of forgone opportunities increase. However, even if the SR actions requires a high cost, the implementation also requires a long-term vision. Thus, an expected feedback could be even higher not only from the financial perspective, but also from society’s and environmental side, like higher stakeholder attention. For example, Kacperczyk (2009) showed that corporate attention to the environment, community and minorities dimensions influenced long-term shareholder value, since author tested the impact of corporate attention to non-shareholding stakeholders by shifting the power from shareholders to managers. Therefore, it is obvious that SR implementation into firm’s activities demonstrates not only corporate’s attention to environmental and societal issues but also has some profitable advantages.

Given the diversity dimension, growing attention of diversity issues has also been acknowledged in tourism literature. For example, Klemm (2002) tested tourism participation of ethnic minority groups in Britain and partly approved the fact that different ethnic groups want different types of holidays because of their race and culture. In addition, Pritchard and Morgan examined gendering issues in tourism promotion (2000) and demonstrated, that according to some places, tourism promotion
privileges the male and heterosexual gaze above all others (Pritchard and Morgan, 2000, pp. 899). Thus, it could be stated that such finding suggest to create a new tourism products, considering to diversity issues.

Finally, based on Turker’s (2009) suggested reputation indices, I propose that in order to objectively evaluate social activities in corporations, the measurement therefore combines reputation indices and databases (Fortune Index, Canadian Social Investment Database (CSID) and KLD Database) based on stakeholder theory as well as the survey dedicated to a certain group of respondents. Also, since we are interested in Inoue and Lee (2011) suggested five SR dimensions, KLD database corresponds to the concept of our research. Thus, in order to get acquainted to SR attributes, the next chapter will introduce SR dimensions as well as SR division proposals suggested by other authors.

*Subjective measures: Ad hoc Surveys*

The third approach consists of surveying a certain group of community in order to measure SR. For example Klemm (2002) holded the survey of 80 Bradford citizens of Asian origin in order to find out their holiday preferences and differences between British population. In addition, Backhaus et al (2002) in their suvey tried to measure whether firm’s social performance influence potential employees perception of organizational attractiveness. According to Martínez et al (2013) the most surveys are mainly focused on the perception of SR activities, but not on corporate behaviours. (Martínez et al, 2013, pp. 369) Thus, it could be stated that in order to objectively operationalize SR measurement, it is necessary to combine more than one methods of SR measurement.

### 2.3. Dimensions of Social Responsibility

While the most part of previous studies used one-dimensional measure that aggregates SR activities, some scholars suggest that SR consists of distinct
dimensions. For instance, Carroll (1979) suggested that SR consists of four dimensions, that is: i) economic responsibility; ii) legal responsibility; iii) ethical responsibility; and iv) discretionary responsibilities. McGehee et al (2009) defines these dimensions as follows. Economic responsibility can be seen as the businessmen’s commitment to be profitable and to meet the requirements of its demand. Legal responsibilities are measured as the engagement level of corporations to base their activities within the written laws. Ethical responsibilities refers to unwritten rules and norms fostered by the society. Finally, discretionary responsibilities refers to philanthropic firms actions. Hence, a businesses are expected to be profitable, ethical, to obey the law, and to be a good corporate citizen. (McDonald, 2006)

With reference to McDonald and Rundle-Thiele (2008), based on Bhattacharya and Sen (2004), SR can be classified into six initiatives from Socrates as follows: (1) employee diversity (e.g. gender, disability or race); (2) employee support (e.g. union relations, concern for safety); (3) product (e.g. research and development, innovation, product safety); (4) impact on the environment (e.g. pollution control, environmental friendly products); (5) overseas operation (e.g. foreign labor practices such as sweatshops) and (6) community support (e.g. support of arts programmes, housing programs for the disadvantaged). This database describes and rates around 600 companies in accordance with their SR records, drawn from corporate social ratings published by KLD research. According to McDonald (2006) KLD’s operationalization considers SR activities as mainly concerning internal corporate practices and operations, essentially affecting internal stakeholders. However, since KLD is not operative anymore, it is important to mention MSCI ESG research group, which took over the environmental, social and governance-related practices and provide research that builds upon the expertise and achievements of KLD on corporate and national levels.

With basis on Inoue and Lee (2011), the most commonly used approach of measuring SR comes from Clarkson (1979) which is based on the use of the Kinder, Lydenburg, Domini (KLD) data, which shows companies focus on various stakeholder issues (Yuhei and Lee, 2011). In particular, the approach consists of five SR dimensions:
1. ‘Employee relations’. This dimension represents corporate’s level of involvement in employee related issues, such as employees’ health and safety assurance, provision of retirement benefits and favorable union relations, … (Inoue and Lee, 2011)
2. ‘Product quality’, which represents company’s concern to offer a quality and/or innovative products, as well as ensuring their safety to consumers.
3. ‘Community relations’, which represents the corporation support to various communities through the implementation of charitable giving, educational initiatives and volunteering programs.
4. ‘Environmental issues’ represent the level of corporate support for the environment, such as implementation of recycling programs or the provision of environmentally friendly products.
5. ‘Diversity issues’ represent the scope to which companies integrates the diversity into its management and operations, like the promotion of women and minority employees.

Keeping this approach as an appropriate way of measure, we base our research on these dimensions, considering them as a potential competitiveness factors not only on corporate but also on national level.

Building upon five dimensions proposed by Inoue and Lee (2011), a number of studies has been made, which represent implementation and measurement of SR in different sectors. The reviewed articles which demonstrate different importance of each of the five SR dimensions are represented in Table 1.

2.4. Destination Social Responsibility as a tool for Destination Competitiveness (National/ Regional Social Responsibility)

According to Crouch & Ritchie (1999), tourism competitiveness is defined as a combination of assets and processes, which includes inherited (e.g. natural resources) or created (e.g. infrastructure) assets and transformed into economic results (e.g. manufacturing). Enright and Newton (2004) stated that tourism destination competitiveness is becoming a field of growing interest amongst tourism researchers,
practicioners and policy makers. However, given the relatively new concept of tourism destination competitiveness, the operationalization of this idea is not completely developed, since most of the research in this field is mostly concentrating on the ‘traditional’ tourism attractors such as climate, scenery or accommodation. Accordingly, Enright and Newton (2004) has provided a methodology that has operationalised the concept of tourism destination competitiveness, which includes not only ‘traditional’ tourism attractors, but also business-related factors, like political stability, international access, or internal transportation facilities. However, even if their study suggests a wider scale of tourism destination competitiveness attractors, there is still a gap of investigation in destination competitiveness field. Thus, we suggest Social Responsibility as a tool for destination competitiveness.

Social responsibility in developing country’s context

Ite (2004) stated that in particular there has been no consideration of whether SR could shift the basis of nation’s competitive advantage. Authors Chapple and Moon (2005) tried to measure SR perception in seven Asian countries, through the analysis of 50 companies of each country. After formulating 4 hypotheses, the investigation of their study has shown that SR is enhanced by globalization, thus their hypothesis that SR varies among the countries has failed. Moreover, the results demonstrated that international companies were more likely to report SR than domestic companies in order to demonstrate higher level of SR adoption on international level. However, according to the same study, authors suggested that SR could be better explained by national factors, like different public policy profiles and national business systems, thus it could be stated that the segmentation of different SR dimensions is necessary in order to clearly identify and measure different SR actions in both - domestic and national level. Another author, Barkemeyern (2007) in his article ‘Legitimacy as a Key Driver and Determinant of SR in Developing Countries’ partly denied the idea of previous study that SR could be better explained by national factors, taking into account public policy profiles. By critically reviewing different SR legislations through developing countries perspective, author claimed that SR implementation in a developing country’s contexts is a bad idea, because increased actions on SR of large businesses may lead to erosion of general conditions that would in turn enable the SR
approaches (Barkemeyer, 2007, pp. 17). Dodds and Joppe (2005) earlier approved this approach, by saying that without political stability, security and basic infrastructure, SR cannot be considered in a developing countries (Dodds and Joppe, 2005). Ite (2004) so far takes the opposite view, and stated that multinational companies (such as Shell) are capable of making significant contributions through SR strategies and initiatives in developing countries like Nigeria (Ite, 2004). However, at the same time author in his research demonstrated, that if the macro-economy is underperforming because of government failure, the possibility that the contributions of multidimensional corporates may fail to achieve desired outcomes. (Ite, 2004, pp. 9) Thus, Barkemeyern (2007) suggest to implement better knowledge and different instruments of SR actions for developing countries.

SR awareness among governments, corporations and local communities

Several studies were done in order to measure SR awareness and implementation in particular country’s context. Dodds and Kuehnel (2009) tried to explore the level of SR awareness between Canadian tour operators, and found that even if the awareness about economic, environmental and social impact of mass tourism in Canada is increasing, the actions remain opposite (Dodds and Kuehnel, 2009, pp.234). According to the study, since there is no regulatory pressure from the Canadian federal government to implement sustainable actions, company’s mostly concentrate on their economic welfare like commercial viability, which was found to have the highest concern between Canadian tour operators. However, unlike the Canadian federal government, the study showed that consumers were somehow aware about responsible tourism, but as well as the latter, did not influenced tour operators to alter their sustainable actions. (Dodds and Kuehnel, 2009, pp. 234) Thus, according to the need of more active corporate involvement into SR actions, authors of the study suggested six elements, that includes: (1) ‘government legislation’, which refers to the need of ensuring legislation of environmental and social principles. (2) ‘Education for consumers and tour operators’ action refers to the greater awareness of environmental and societal issues for both groups. (3) ‘Supply chain effort’ action that refers to implement sustainable management principles to the hotel, restaurant and transport suppliers. (4), ‘Create partnerships in destinations’, which refers to creating the
partnership between destinations and tour operators, in order to create sustainable resort development. (5) ‘Create partnerships with NGOs and other associations’, that refers to create partnership with environmental conservation organizations and (6) ‘Report and communicate’ suggests firms to create structured SR goals and further to report the achievements to their stakeholders.

Sustainable development issues in tourism (firms level)

Golja and Nižić (2010) stated that the development of a sustainable tourism product is impossible, because in order to achieve highly competitive tourism product that could be attractive on the global level, everyone in the tourism must contribute. Saying in other words, based on unsustainable manner, companies are more likely to seek the higher profit rejecting societal and environmental issues. Regardless of this, authors emphasized the need of sustainable development, and admitted that tourism related companies must be environmental sensitive, to have a deeper sense for the community as well as respect their culture. Finally, after comparing several Croatian hotels involvement into SR actions, the authors came to the very similar conclusions as previously reviewed study investigated by Dodds and Kuehnel (2009). First of all, authors suggest tourism companies to publish sustainability reports and to make them available for different stakeholders. Also, the results overlap to the need of education, which offers SR studies and training courses to the firms employees. Also authors suggest to create an intense partnership between companies and regional higher education institutions. (Golja and Nižić, 2010) Generally, the results of this study suggests many more aspects, that enforce tourism companies to participate in various charity, philanthropical and sacrificial events. Ite (2004), by reviewing SR process, argued that even if social responsible business can help to solve social and environmental problems, SR might disort the market by deflecting bussinesses from its primary role of profit generation. (Ite, 2004, pp.2) Accordingly, since Golja and Nižić (2010) suggested list of companies responsibilities is sufficiently long, the ideas does not seem to be very friendly from the company’s profit perspective. Neverthelless, as Dodds and Kuehnel (2009) stated, SR requires a long-term vision, thus the sustainable actions doesn’t need to be taken all at the same time.
From the touristic destination’s point of view, Byrd et al (2009) demonstrated tourism’s impact on environment and society. After specifying tourists and local communities into primary stakeholders, author tested differences in perception of tourism impact between them. The results showed that even if tourism development increases a community’s life and improves economy, accordingly it produces long-term negative effects on the environment and worsen local community’s quality of life. In addition, Holden (2003) stated that tourism development causes environmental problems, which in turn damages the ability of present and future generations to sustain their livelihoods. (Holden, 2003, pp. 104-105) Thus, it is obvious that in order to assure environmental and societal wellness by developing tourism, it is also necessary to implement responsible actions.

**Additional prove for taking responsible actions**

In addition, more specified example was represented by Beeton (2010) who reviewed the damage, that filming industry causes for a particular touristic destination and its host community. Author of the study approved the need of implementing SR actions not only toward film companies, but also toward local governments, in order to provide a particular legislations and restrictions to tourists. This simple example confirms the fields of improvement represented in the previous studies – the need to act in a more responsible way by implementing not only actions, but also the idea of sustainable manner.

To sum up, despite different level of attention to separate SR dimensions in various sectors of tourism on both levels, with reference to reviewed studies we can sum up why SR actions are important:

- Firstly, by implementing SR actions in corporation’s activities, companies acknowledge their responsibilities, and therefore approve growing societal concern for social and environmental issues.
- Secondly, higher degree of corporate social concern ensures competitive advantages among the companies, on national and global level.
• Thirdly, SR promotes higher degree of corporate concern for stakeholder group, which in turn have an ability to improve not only the relations with them but also and firm’s financial performance. (Berman, 1999)

• Fourthly, company with implemented SR actions in its activities is determined as being more attractive to potential employees. (Backhaus et al, 2002)

• Fifth, even if SR implementation on company’s actions have a high cost, SR requires a long-term vision, which needs to be developed in a long term.

• Finally, multinational companies are capable of making significant contributions through SR actions in developing countries. (Ite, 2004)

III. METHODOLOGY

3.1. Using DCE to obtain monetary valuations of SR actions

In order to get the desired results, in this section we propose discrete choice experiments (DCE) as a tool to be used to predict the impact of Tourist Destination Social Responsibility Actions on tourist demand.

Discrete Choice Experiments (DCE) has been widely used to examine consumer decisions and preferences in various fields, such as marketing, transportation, environmental and health economics. According to Hoek and Gendall (2008), DCE examine attributes in the context of other product characteristics, thus it helps to create more realistic choice situation. In tourism research DCE has been widely utilized by investigators in order to test consumer’s behavior in different situations in a particular destination context. (Araña and León, 2008, 2013; Fieldman and Vasquez-Parraga, 2013; Kelly et al, 2006; Unbehaun et all, 2008; Crouch et all, 2007; Crouch et all, 2008)

In order to evaluate SR influence on tourists’ destination choice, we implement DCE with the purpose to obtain tourist’s willingness to pay (WTP) for SR activities in tourism sector. In this study we refer to Lancaster’s proposed approach to Consumers Theory which states that consumption is an activity where goods are considered as inputs, and the output is a collection of different characteristics (Lancaster, 1966, pp. 133). We assume this approach as an appropriate division, since we are interested in the trade-offs between the multiply characteristics. Respectively, SR dimensions are considered
as multiple characteristics of the tourist product, therefore by statistically designed different configurations of tourist products we estimate the contribution of SR actions. Since we have price as a characteristic, the trade-off between price and SR actions will give us an information about WTP for SR actions in the tourism sector and hence the results are expected to allow us to preliminary evaluate destination’s competitiveness under SR activities, and consequently to demonstrate the SR importance as an international competitiveness tool among tourist destinations. The measurement of SR and the design of the survey were taken from the precursor study by Araña and León (2014) which in turn allowed us to identify the key aspects of SR which were the most valuable to consumers. The surveys described several scenarios, which included different levels of attributes, including a monetary aspect (price), and different level of involvement into SR actions. The survey presented a series of questions, where each question included two or more alternatives, from which respondents had to chose their preferred option.

Kragt and Llewellyn (2014) stated that theoretical basis of choice experiments lies in ‘random utility theory’ and aforementioned Lancaster’s characteristics theory of value’ (Kragt and Llewellyn, 2014). Given Lancaster’s proposition that any good consists of different attributes, the random utility model describes the utility $U_{ijt}$ that individual $i$ gets from the choice $j$ in situation $t$. Accordingly, the component $V_{ijt}$ is described as a ‘systematic’ utility inherent of utility and is assumed as a linear systematic component. The variable $\varepsilon_{ijt}$ is considered as a random unobserved error term. The equation therefore is defined as:

$$U_{ijt} = V_{ijt} + \varepsilon_{ijt} \quad (1)$$

Under the utility function, the systematic component of utility (2) $V_{ijt}$ is expressed by the importance of functional attributes for visitors $\beta' i$ followed by an explanatory variable $x$ which includes functional attribute´s options. Next component of equation $\alpha$ is considered as a vector of importance of SR attributes for visitor followed by $Q_{ijt}$ which describes SR alternatives.

$$V_{ijt} = \beta' x_{ijt} + \alpha' Q_{ijt} \quad (2)$$
Considering our proposition to obtain the information about consumers WTP for Social Responsibility actions, after estimating the contribution of SR actions on tourist’s destination choices, we consider $Q_j$ as a vector of characteristics of SR alternatives, and $q_n$ as a particular SR dimension.

SR attributes as well as functional attributes are represented in a table 2.

$$Q_j = (q_1, q_2, \ldots q_5)$$ (3)

**Table 2.**

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<th>Functional attributes</th>
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<td>1. Labour conditions</td>
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<td>2. Environmental issues</td>
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<td>3. Community relations</td>
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<th>SR attributes</th>
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<tbody>
<tr>
<td>1. Price</td>
<td></td>
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<tr>
<td>2. Length of the stay</td>
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Thus, we state that an individual $i$ would choose alternative $j$ in situation $t$ if and only if:

$$U_{ijt} > U_{ikt} \quad \forall k \neq j$$ (4)

The probability of this event can be represented as:

$$\text{Prob (choosing } j \text{)} = \text{Prob}(U_{ijt} > U_{ikt})$$ (5)

$$\text{Prob } [(\beta 'x_{ijt} + \alpha 'Q_{ijt} + \varepsilon_{ijt}) > (\beta 'x_{ikt} + \alpha 'Q_{ikt} + \varepsilon_{ikt})]$$ (6)

$$\text{Prob } [\beta '(x_{ijt} - x_{ikt}) + \alpha '(Q_{ijt} - Q_{ikt}) > (\varepsilon_{ijt} - \varepsilon_{ikt})]$$ (7)

At this point we need to specify the probability distribution function (8), which describes our focus on latent class model for scenarios where information is available on several covariates in order to obtain one dimensional response variable:

$$F(\varepsilon_{ijt} - \varepsilon_{ikt})$$ (8)
Thus, we let probability of belonging to a particular class depend on subject-specific variables through a multinomial logic model. The specification of econometric logic model is presented in the next section.

3.2. Econometric Specification: Benefits and implications of departing from conditional logit model

Conventional DCE are based on conditional logit econometric specifications of function $F(.)$ on equation (8), (McFadden, 1974). However, during the last twenty years or so there is a growing literature aimed at exploring more flexible functional forms for $F(.)$ (see Keane and Wasi, 2013; or Hole and Kolstad, 2012; for recent reviews). These flexible econometric specifications try to allow DCEs to accommodate for preferences heterogeneity. Probably the explosion of these models come from Train and McFadden (2001), when they show that any utility maximization problem involved in responding to DCE’s can be approximated by an appropriately specified mixed logit model\(^1\). However, Balcombe et al (2009) raised several questions related to the economic interpretation of mixed logic models, which should be answered in order to understand the operation of mixed logic model.

**Which coefficients in the model should we assume to be fixed or randomly distributed?**

The first question is connected to the choice of which coefficients in the model should be considered as fixed and which should be randomly distributed. According to Balcombe et al (2009), this division of utility coefficient is the main source of instability for the WTP measurement. According to the same authors, fixing parameters is necessary if payment coefficients are random, because in this case the moments of WTP ratio may not exist. Respectively, if the parameters in such situation are fixed, the estimates of WTP could be expected to stabilize.

**Which distributions should be employed?**

\(^1\) Actually it can be shown that all the proposed models (latent class models, GMNL, ...) are just particular specifications of the mixed function within the mixed logic models.
The second question raised by Balcombe et al (2009) encompasses the problem of selecting statistical distributions when including random parameters. With basis on Hole and Kolstad (2012) the distribution of preferences follows a particular distribution, e.g. a normal distribution. In addition, since there exist a number of possible distributions, the classical methods are found to better handle *bounded distributions*, while Bayesian methods perform better with *transformation of the normal* distribution (Balcombe et al, 2009). With accordance to the same authors, since the most popular distribution was recognized the ‘normal’ one, it implies the idea that there will always be some respondents who will have extremely positive or negative values in respect of various attributes. As a result, this may lead to inappropriate assumption to impose on the model (Balcombe et al, 2009). Hole and Kolstad (2012), support this idea by saying that “it is unreasonable to assume that all individuals have the same marginal utility of income, so this implies an undesirable trade-off between reality and modelling convenience.”

In addition, from the alternative – log-normal distribution point of view, the preferences for income are considered to be heterogeneous, but WTP distribution can be highly distorted, and therefore may also produce unrealistic estimates of the WTP means.

*Should we adopt a WTP space or a preference space?*

As a solution to the latter problem, Hole and Kolstad (2012) suggest to estimate the mixed logit model in WTP space rather than in preference space. Likewise, the third question raised by Balcombe et al (2009) links to the dilemma if we should estimate WTP in preference space or in WTP space. With reference to Balcombe et al (2009), in WTP space distributions of the marginal rates of substitution are estimated directly, thus this leads to production of more stable WTP estimates. It is also essential to mention that the instability of the WTP estimates in preference space is especially strong “where the parameter of the payment attribute is variable and is not bounded above zero” (Balcombe et al, 2009).

*How should we compare alternative specifications?*
Finally, the fourth question asks on what basis the model comparison should be substantiated and with respect to Balcombe et al (2009), there is no theoretical basis on which the comparison of the models should be based on. As it was observed by Kamakura and Wedel, the distribution of preference coefficients need to be considered by investigator and therefore the distribution, which most accurately represents the data becomes an empirical issued (Balcombe et al, 2009).

3.3. The econometric model

This section describes most of the different econometric specification that have been proposed in the discrete choice literature, and is mainly borrowed from Balcombe et al (2009).

**General model specification**

The utility that the $j$th individual receives from the $s$th choice in the $n$th choice set is assumed to be of the form

$$U_{j,s,n} = x'_{j,s,n}g(\beta_j) + e_{s,j,n}$$

(1)

where $x'_{j,s,n}$ denotes the $k \times 1$ vector of attributes presented to the $j$th individual ($j = 1, \ldots, J$) in the $s$th option ($s = 1, \ldots, S$) of the $n$th choice set ($n = 1, \ldots, N$). $y_{j,s,n}$ denotes an indicator variable that equals 1 if the $j$th individual indicates that they would choose the $s$th option within the $n$th choice set, and 0 if they would not. $\beta_j$ is a $(k \times 1)$ vector describing the preferences of the $j$th individual and $g(\cdot)$ is transformation of the parameters from and to the space of $k$ vectors. The errors $e_{s,j,n}$ is ‘extreme value’ (Gumbel) distributed, is independent of $x'_{s,i,n}$, and is uncorrelated across individuals or across choices.

Without loss of generality, the parameters $\beta_j$ are ordered so that they may contain fixed parameters $c_j$ in the first block, and random parameters $b_j$ in the second

$$\beta'_j = (c'_j, b'_j)$$

(2)

Both $c_j$ and $b_j$ can be conditioned on variables describing the characteristics of the $j$th individual. Preferences may therefore be determined by a vector $z_j$, a $(h \times 1)$ column vector describing the characteristics of the $j$th individual ($h$ being 1 and $z'_j$ being 1, for
all $j$, if there are no characteristics). Therefore, defining $Z_j = I_k$, the components of $\beta_j$ are defined as:

$$C_j = Z_j'\alpha_c$$
$$b_j = Z_j'\alpha_b + u_j$$

(3)

and $u_j$ is a independently and identically normally distributed vector with variance covariance matrix $\Omega$. The error $\{u_j\}$ are assumed to be uncorrelated across individuals.

The function $g(\cdot)$ may take many forms (Train and Sonnier, 2005). In considering estimation in WTP space, we also use reparameterisations of the form

$$g(\beta_j) = g_1(\beta_{1j})(g_2(\beta_{2j}), \ldots, g_k(\beta_{kj}))'$$

(4)

in which case the quantities $g_2(\beta_{2j}), \ldots, g_k(\beta_{kj})$ are marginal rates of substitution with the numeraire element of attribute vector (the first element in the case above). If this type of transformation is used then we say that estimation is taking place in WTP space. Otherwise, estimation is being performed in ‘preference space’.

The set of all stated choices by respondents is $Y = \{y_{j,s,n}\}_{j,s,n}$. The set of characteristics describing all respondents is $Z = \{z_j\}_j$. The set of options given to the $j$th individual is $x_j = \{x_{j,s,n}\}_{s,n}$ and the set of all options sets given to all respondents is $X = \{X_j\}_j$. The data $D$ are, therefore, the collection $D = \{Y, Z, X\}$.

Faced with a set of choices, the $j$th individual will prefer $x_{s_k,n}$ if $U_{j,s_k,n} > U_{j,s_q,n}$ for all $k$ not equal to $q$. Each respondent has a probability ($\pi$) of misreporting, along with a probability ($\lambda_s$) that misreporting (should it occur) will be in favour of option $s$ (where $\sum \lambda_s = 1$). The parameters related to misreporting are denoted as $\Lambda = (\pi, \lambda_1, \ldots, \lambda_{S-1})$. The collection of all parameters describing the model are denoted as $\Theta = (\alpha, \Omega, \Lambda)$ and the set $\{b_j\}_j$ will be denoted as $B$ the ‘latent data’. Finally, for convenience, the definite multiple integral $\int_{\beta_n}^{\beta_1} dB_1 \ldots dB_n$ is expressed as $\int_B dB$.

\textbf{Priors}

Bayesian estimation requires priors for $\alpha$ and $\Omega$ and $\Lambda$. For $\alpha$ these are specifies as being normally distributed with mean $\mu$, and variance $A_0$:

$$(\alpha'_c, \alpha'_b)' = \alpha \sim N(\alpha|\mu, A_0)$$

(5)

where $A_0$ is a diagonal matrix. If there are fixed and random elements, the associated means for $\alpha_c$ and $\alpha_b$, respectively, are $\mu_c$ and $\mu_b$. Likewise, $A_0$ contains the diagonal
blocks $A_{0,b}$ and $A_{0,c}$. The prior for the covariance matrix of the random parameters is
distributed inverse Wishart with parameters $T_0$ and $V_0$
$$\Omega \sim f_{\text{IW}}(\Omega|T_0, V_0)$$
The ‘hyper parameters’ $\mu, A_0, T_0, V_0$ are set a priori. The misreporting parameters are
assumed to have a uniform prior, subject to inequality constraints
$$\pi \sim f_{\text{U}}(0,1)$$
$$\bigl(\lambda_1, ..., \lambda_{S-1}\bigr) \sim f_{\text{U}}(0,1)^{S-1} \times I \left(\sum_{s=1}^{S-1} \lambda_s \leq 1\right)$$
where $\sum_{s=1}^{S-1} \lambda_s \leq 1$ is equal 1 if the constraint is obeyed and zero otherwise. The
integrating constant of this distribution is $1/(S-1)!$ Together this set of priors is denoted
as $P(\Theta)$, and the priors on $\Lambda$ only, as $P(\Lambda)$.

Full-data likelihood, the likelihood and marginal likelihood

The full-data (or complete) likelihood function is the likelihood expresses in terms of
the parameters and latent data $(B)$. For the ML with misreporting, the full-data
likelihood is
$$L_f(B, \Theta, D) = \prod_j \prod_s \prod_{n} p_{j,s,n}^{Y_j, s, n} f(B|\Omega, \alpha_b, Z)$$
Integrating out the latent data gives the likelihood
$$L(\Theta, D) = \int f(B|\Omega, \alpha_b, Z) dF(B|\Omega, \alpha_b, Z)$$
In the absence of latent data we could write $L(\Theta, D) = L(\Theta, D)$. $L(\Theta, D)$ is likelihood
of the model. It is this quantity that is maximised in classical estimation. The marginal
likelihood, given priors on the parameters $P(\Theta)$, is
$$\mathcal{M}(D) = \int L(\Theta, D) P(\Theta) d\Theta$$
The larger marginal likelihood indicates greater support for a particular model.

Model estimation

As for the model estimation we also follow the procedure and recommendations
proposed by Balcombe et al (2009). It follows that the poseriors of $\alpha_b$ and $\Omega$ are known
given values of $\alpha_c$ and $\Lambda$. When some of the coefficients are fixed or the model
contains misreporting probabilities, M-H steps are required to map the posterior
distributions of $\alpha_c$ and $\Lambda$. Alternatively, if all parameters are fixed, a M-H algorithm can
be employed to estimate the model. Investigations into the performance of estimation
algorithms revealed that the rates of convergence depended on the types of transformations \( g(\beta_j) \) that were used and whether misreporting was introduced, because of the extra steps required to compute the model.

For the analysis, the posterior distributions are mapped using 10,000 draws from the posterior sampler. Convergence of the sampler is monitored in several ways. First, visual plots of the sampled values are produced as sampler. Coverage of the sampler is monitored in several ways. First, visual plots of sampled values are produced as the sampler runs for the sequences of \( \alpha, \Omega \), and \( \lambda \). Second, a degree of dependence of the sampled values is examined by estimating the autocorrelation coefficients of the sequential values of the sampler. The ‘skip’ (only very ‘skipth’ iteration is recorded) was then set so as to allow a lesser degree of dependence should autocorrelation be too high. Third, a modified t-test for hypothesis of ‘no-difference’ between the first and second half of the sampled values (with subset eliminated from the middle) was conducted on the sequence of \( \alpha \) parameters. This used an estimate of long-run covariance matrix (the spectral density matrix of the sequence at frequency zero) provided by the spectral kernel methods.

**Choice of priors**

We refined our priors using Monte-Carlo trials. These indicated that setting \( T_0 = \nu_0 \). \( \Omega \), inflated estimates of the covariance matrices \( \Omega \), generated by the sampler and inflated values of \( \alpha \) also. This tendency depended on the values of \( \Omega \), used to generate the data, the number of attributes, the sample size and the number of choice sets given to each respondent. When all parameters were random, setting \( T_0 = \nu_0/10 \) and \( \nu_0 = k(k + 1)/2 \) being the number of free elements in the covariance matrices \( \Omega \) and were dominated by the data in cases where the elements of \( \Omega \) were larger. Our experiments also indicated that these priors gave similar, but slightly better results, to simply using \( \nu_0 = k + 3 \) or \( k + 4 \).

Proper priors are used for \( \alpha \) because marginal likelihood values cannot be computed without them. Non-informative priors can be obtained by setting the diagonal elements of \( A_0 \) to very large values. However, the priors employed here are set more
informatively, with $A_0 = 10I_k$ and $\mu = 0$. In a standard linear regression framework these priors would, in most cases, be considered highly informative. But, given the attribute values employed in this study these priors are only weakly informative, although they can sometimes substantially improve the performance of the sampler. This is particularly so in specifications that attempt to truncate the distributions of $b_j$ since the whole of the distribution can become massed at a point of truncation, and $\alpha$ can become non-identified. In such circumstances, an informative prior can prevent this parameter wandering into non-identified regions indefinitely.

Calculating the marginal likelihood

The ratio of the marginal likelihoods gives the posterior odds for the two models (measuring the relative support for these models) given that the prior odds are even. Marginal likelihood calculations can be practically problematic in cases where the parameter space has many dimensions. Using $M$ to denote different models, denote $\mathcal{M}(\mathbf{D}, M)$ as an estimate of the marginal likelihood for the $M$th model. The method of Gelfand and Dey (GD) (1998) estimates the marginal likelihood using

$$\ln \mathcal{M}(\mathbf{D}, M) = -\ln \left[ G^{-1} \sum_{i=1}^{G} \frac{\psi(\Theta_i)}{P(\Theta_i|L(\Theta_i, \mathbf{D}, M))} \right]$$

(11)

or alternatively

$$\mathcal{M}(\mathbf{D}, M) = -\ln \left[ G^{-1} \sum_{i=1}^{G} \frac{\psi(\Theta_i, B_i)}{P(B_i|\Theta_i)P(\Theta_i)L(\Theta_i, B_i, \mathbf{D}, M)} \right]$$

(12)

where $\Theta_i$ and $B_{s,i}$ are draws from their posterior distributions. The ‘tuning functions’ $\psi(\Theta_i)$ or $\psi(\Theta_i, B_i)$ are density wise with tails that are sufficiently thin so the fractions within the expressions (11) or (12) are bounded from above. Alternatively, the tuning functions can be set equal to the priors, in which case expressions (11) and (12) collapse to harmonic means which are known to be unstable (Raftery, 2006).

The second estimate (12) is the easier to calculate, for a given choice of $\psi(\Theta_i, B_i)$. It does not require recording draws of $B$, which would be memory intensive, providing $\psi(\Theta_i, B_i)$ and $P(B_i|\Theta_i)$ are recorded when running the sampler. However, GD method tends to give poor estimates in high dimensional problems (Raftery, 2006). As $B$ contains up to $J \times k$ elements, our approach is to use (11) in preference (12) in order to mitigate the negative impacts of this dimensionality.

In calculating (11), $L(\Theta, \mathbf{D}, M)$ can be simulated by making successive draws of $B_t$ ($t = 1, \ldots, T$) from $f(B|\alpha, \Omega, \mathbf{Z})$ and calculating the likelihood as outlined by (Train,
In this work we used a truncated normal tuning function (Koop, 2003). Computing $L(\theta, D, M)$ requires simulation for each value $\theta_i$ because it greatly improves the efficiency of the simulation. We employ Halton sequences. Monte-Carlo trials indicated that using 500 replications with Halton sequences yielded accurate values, and the GD likelihood calculations in (11) appeared to discriminate well between different specifications.

The estimation of the marginal likelihood calculations in (11) is an average of the quantity $\psi(\theta)/P(\Theta)L(\theta, D, M)$. An estimate of the numerical error is obtained in this paper by employing the stationary bootstrap described in Li and Madala (1997) which is a random length block bootstrap that accounts for the dependence in the sequence (12).

IV. DATA COLLECTION

The experiment was aimed at obtaining a monetary valuation of several Social Responsibility (SR) dimensions. Moreover, a prediction of the influence of SR on the number of visitors, and on their expenditure levels at the destination were evaluated. A DCE was conducted to elicit tourists’ preferences for SR actions. DCE is an empirical methodology which is based on the use of a survey in which respondents need to choose among different destinations, which differ in terms of prices, quality and the adoption of alternative SR profiles.

The questionnaire consisted in asked respondents to chose among alternative destinations. Some of them where cheaper but presenting low levels of SR performance, while others involve higher levels of SR performance at higher prices. SR influence for the number of visitors and destinations SR as an international competitiveness tool was estimated based on respondents WTP for SR actions.

Based on previous works (Inoue and Lee, 2011; Araña and León, 2014), we consider 4 SR dimensions, which represents different voluntary activities:

- The use of fair labour conditions, which represents (‘Diversity issues’)
• Implementation of higher level of environmental management. (‘Environmental issues’)

• Involvement in social projects that helps to increase the welfare of the host community. (‘Community relations’)

The final study was conducted in 2010 with a representative sample of visitors to Cartagena de Indias (Colombia). The ultimate sample size consisted in 550 adult visitors, which were randomly approached at the airport while they were waiting to board in their flights back home. Random selection was restricted by using quotas of gender, age and nationality based on official statistics of Cartagena de Indias.
V. RESULTS AND DISCUSSIONS

Results

By using the data obtained from the previous work (Araña and León, 2014), the DCE was modelled with Matlab software. The utility function was specified depending on SR variables that were presented to respondents in choice scenarios. Other functional attributes were also included in the model.

The results of WTP estimates are represented in the Table 3 and Table 4. From the table 2 we can observe that for our estimation the most appropriate model is 15. This model is characterized because it does estimates the mixed logit model in the WTP space. Thus, our results support previous findings (Vermeulen et al, 2008; Balcombe et al, 2009) showing that when the goal is to elicit the latent WTP distribution, model estimated in the WTP space seem to provide more accurate fit than those estimated in the preference space. The marginal likelihood for the most preferred model is -885.56.

The synthetic results obtained by applying the preferred model (e.g. M15) are presented on table 3. It can be observed that the monetary evaluation of SR action through the use of DCE leads to significantly positive values for both, the most preferred attributes (labour conditions and environment) and the least preferred dimensions. This means that preferred goods receive lower bids when valued within a group of other goods with which they can be compared’ (Araña and León, 2014).

Another noticeable implication is that WTP values to the three SR attributes are more disseminated that those found in previous studies using conventional discrete choice contingent valuation for each SR action in isolation (Araña and León, 2014). For instance, in joint evaluation mode the most valued dimension was considered ‘Environment’, with value of €23.70, and the least valued dimension – ‘Societal projects’ with value of €4.20. Accordingly the margin between the most valued and the least valued goods in the single evaluation format was noticeably smaller. The most valued dimension – Environment – received the value of €16.70 and the least preferred
dimension – Social Projects, received a value of €11.40. Thus, the single evaluation mode leads to closer SR dimension values than joint evaluation. With reference to Araña and León (2014) the reasons for these results are consistent with the idea that seeing attractive products as more attractive if they are valued in comparison with less attractive alternatives and the opposite.

Discussion and further research

Model estimation helped us to ascertain the difference of how much an individual would be willing to pay for a touristic destination which includes different levels of Social Responsibility involvement. In practice an individual chose between paying a higher price for goods with larger SR profiles and benefit from a lower price if those profiles are not taken into consideration. Such an estimation could be considered by corporations as well as by governments in order to improve their SR performance.

Whilst our study was consistent with Inouee and Lee (2011) proposed SR division into 5 dimensions, the research data included 3 SR policies. In terms of the importance, the dimensions could be ranked as follows:

1. Environment (Environmental issues)
2. Labour (Employee relations; Product quality; Diversity issues)
3. Social projects (Community relations)

Given these rankings, ‘environmental issues’ are defined as the most valuable dimension which receives the highest price. Thus ‘environment’ dimension should be considered in the first place in order to improve SR performance in both – corporate and national levels. The second dimension by relevance is considered labour conditions and the final was considered the involvement in social projects.

Some further research that I am working on after this dissertation are the following. First, the identification of different profiles of visitors that are more likely to accept higher WTP for SR actions, Second, it is also relevant to compare the values obtained
by different types of tourists and among visitors and tourist “experts” (e.g. corporation managers, DMOs members, researchers, …).

In spite of the growing DMOs efforts in SR actions, there is still a large controversy estimating the real impact of SR policies on tourism demand. In fact, although an increasing number of corporations publish environmental, health and safety reports, “[…] many are simply token efforts – greenwashing – and few address the full range of social issues necessary to assess adequately a corporation’s behaviour“ (Laufer, 2003). The final aim of the further research is to deal with this “green-washing effect”. In particular, we are planning to compare stated (surveys) and real (markets) behaviors in situations in which visitors can choose to pay more for similar vacation packages differing in the level of SR actions implemented at the destination.
REFERENCES


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<th>Title</th>
<th>Dimensions</th>
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### Table 3.

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Notes: CR, percentage correctly reporting; ML, logged marginal likelihood; SE, standard error on the estimated marginal likelihood. F, fixed; N, normal; L, lognormal; T, triangular; C, censored normal (negatives massed on zero).
Mean WTP per visitor (euros) for each SR actions proposed

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<th>Joint format WTP (DCE)</th>
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<td>Social projects</td>
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* Single format WTP comes from Araña and león (2014).