

# Discovering the sustainable hotel brand personality on TripAdvisor

Sustainable  
hotel brand  
personality

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## Abstract

**Purpose** – This paper aims to explore a hotel brand personality performance through electronic word-of-mouth. A complementary attribute is designed and tested in addition to the already existing five dimensions from the brand personality scale, denominated sustainability.

**Design/methodology/approach** – A sample of 16,175 reviews from the rating session of three hotel properties behind a brand was retrieved from TripAdvisor for a data mining procedure. A complementary list of associated words was considered in addition to the 42 personality traits of Aaker's model, and a brief inventory was developed based on the 17 sustainable development goals (SDGs) to compose the sustainability dimension.

**Findings** – This study registered sincerity as the most representative dimension in its results, and ruggedness as the lowest. This is evidence that the latter is not suitable for representing a brand personality scale for hotels and could be replaced by sustainability.

**Research limitations/implications** – Despite the relevant findings, new surveys and tests are recommended to provide better support to the new proposed dimension.

**Practical implications** – This investigation enables hotel managers to work more effectively on their brand strategies based on sustainability-oriented brand personality, which could deliver economic, social and environmental benefits to the world by influencing consumption behavior in association with the SDGs.

**Originality/value** – This study differs from existing literature by attempting to fill a gap on the limitations of studies focused on linking brand personality to sustainability, and using data mining to reach this goal.

**Keywords** Sustainability, eWOM, Data mining, Hotel brand personality

**Paper type** Research paper

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摘要

探索 TripAdvisor 上的可持续酒店品牌个性

研究目的 – 本论文探索通过电子口碑形式的酒店品牌个性效用。本论文设计和检测了一个附加要素(计价可持续性),对现有的五项维度品牌个性量表进行补充

研究设计/方法/途径 – 本文样本为TripAdvisor同一品牌的三家酒店的16.175评论,对其进行数据挖掘。本文扩充了Aaker模型的42项个性特点外的相关词汇,并且建立了基于17项可持续发展战略目标(SDGs)的词汇库,以确定可持续性维度

研究结果 – 本论文确立了真诚度为结果中最具代表性的维度,坚固性为最低代表度。显而易见,坚固性不适合代表酒店品牌个性,需要被可持续性取代

研究理论限制/意义 – 尽管相关结果,本文建议采用新问卷和测试来为新提出的维度做更好的理论支持

研究实际意义 – hx672c;论文使得酒店经理能够更高效地运作,基于可持续品牌个性的品牌战略,这将带来结合SDGs的消费行为,从而对世界带来经济、社会、和环境效益

研究原创性/价值 – 本论文区别于以往的文献,连接品牌个性与可持续性,使用数据挖掘的方法,来实现研究目的,对有限的相关文献做出贡献

关键词 关键词 酒店品牌个性、eWOM、数据挖掘、可持续性

文章类型 研究型论文

## 1. Introduction

Sustainability is considered an essential theme for the digital world which requires not only economically viable business models but also socially sustainable business practices (WEF, 2018). Following this concept, the tourism and hospitality segments also show significant reasons which call for an urgent assessment on the sustainability theme as a fast-growing industry in the world (Asmelash and Kumar, 2019).

Moreover, another theme which has emerged is branding (Casidy *et al.*, 2018), due to the fact that brands are one of the most valuable intangible assets that companies possess (Keller and Lehmann, 2006). A second reason is the growing market competitiveness and changes in consumer behavior who are better informed nowadays and use technology tools in their decision-making processes (Kotler *et al.*, 2017). Sustainability and branding are two distinctive themes with their own particularities, but could bring contributions to business development if they are integrated (Kumar and Christodouloupoulou, 2014).

This is the digital age and consumers are seeking brands centered on humans which contain personalities like people (Kotler *et al.*, 2017), denominated the brand personality (BP). Thus, this study is the first step to develop a BP model specifically geared for hotels enabling incorporation of sustainability as an extension to the brand personality scale (BPS) originally developed by Aaker (1997), and consequently help to achieve the sustainable development goals (SDGs) introduced by the United Nations.

Based on these premises and to address the recommendation by Kumar and Christodouloupoulou (2014) to investigate whether sustainability could be incorporated as another dimension of the BPS, the objective of this study is to explore how sustainability performs as a hotel BP in a digital environment as identified through electronic word-of-mouth (eWOM).

## 2. Theoretical background

### 2.1 Brand personality for hotels

There are different perspectives to address branding and one of them is to explore the BP. As consumers perceive brands as having human personality traits (Azoulay and Kapferer,

2003), this concept of BP has been developed and defined by Aaker (1997) as “the set of human characteristics associated with a brand” (p. 347).

BP has become a strategic and powerful way to gain competitive advantages for hotels (Lee and Back, 2010), and there are some reasons for this, as there is a statement by Aaker (2015) that many hotel brands suffer from lack of differentiation. First, a brand with a strong personality improves its brand equity (Aaker, 2015), and brand equity is a key to getting higher occupancy and rates for them (Dev, 2012). Second, the association of human attributes with brands is a strategic component to be distinguished among competitors (Kotler *et al.*, 2017).

BP studies began to stand out in marketing and branding literature starting from 1997. The reason for this is that Aaker (1997) developed the BPS, which is capable of measuring the personalities which could be found in brands. Dimensions of BP is the title of the work that Aaker developed, which has already been cited by 2,518 new studies since that time (Scopus, 2019).

This scale has been frequently applied by researchers to explore brands from various segments. However, only a few studies have applied it to hotel brands (Li *et al.*, 2014). Some researchers such as Lee and Back (2010) have already applied the BPS to upper-upscale business hotels. Li *et al.* (2014) also applied it for economy hotels, Paiva Neto and Ferreira (2017) for coastal hotels (2017), and Su and Reynolds (2017) for a mix of segments. However, Su and Reynolds (2017) commented that the BPS is “not large enough to reflect a hotel brand’s particularity” (p. 11). This affirmation served as a motivation to rethink the BPS for the hospitality industry. One more relevant finding during the hotel BP state-of-the-art investigation revealed that some studies rejected the ruggedness dimension (Lee and Back, 2010).

## 2.2 Sustainability as a brand personality attribute

According to Moscardo (2015), there is a complex relationship between tourism and sustainability, and the key to improve this relationship is in developing a greater sense of responsibility towards and within the various stakeholders in the tourism system.

In fact, this sector still has difficulty in finding the formula to achieve the three issues that involves the triple bottom line: economic, social and environmental (Navío-Marco *et al.*, 2018). According to Gimenez *et al.* (2012, p. 150), “the triple-bottom-line concept suggests that firms not only need to engage in socially and environmentally responsible behavior, but also that positive financial gains can be made in the process”, and their three dimensions (when integrated) represent the Sustainability term.

Once sustainability is considered essential for operational business management (Gimenez *et al.*, 2012), it might be considered for brand management as well. This is because the combination of sustainability into branding as part of the core mission of a company could lead to a competitive advantage and express a company’s concern about sustainability to clients (Kumar and Christodouloupoulou, 2014).

Previous studies which examined the extension of BP to the environment, or social and economic integrated pillars of sustainability have not been found. Acharya and Gupta (2016) only investigated the environment pillar and developed the Green BP scale with adaptations from the Aaker model. Such extension with some sustainability attributes could be a demonstration that the sustainability-oriented BP is conceptually viable to be formed (Figure 2).

Based on this and considering that lodging is one of the main industries which enables mass tourism to occur by hosting them and consequently provoking environmental problems (Kristanti and Jokom, 2017), or by affecting the quality of the residents’ lives (Kim *et al.*, 2013), there is a necessity to continue improving incorporation of sustainability aspects into hotel strategic brand management. This is even more so imperative because a hotel is a person’s temporary home, and it could influence the guest by demonstrating sustainable practices (Amatulli *et al.*, 2017).

Society is changing, just as tourism consumption and consumers are becoming more empowered with an active voice on the internet (Kotler and Kotler, 2013). Amatulli *et al.* (2017) argue that the new generation of consumers is also increasingly aware of environmental and social problems and are reprimanding brands which do not conform to these issues, and it is no longer enough for brands to not do wrong, but rather to implement proactive participation in the causes in favor of sustainability issues. For example, Stengel (2013) found out that brands with ideals centered on improving societal life outweigh the market by a huge margin. As a consequence of this change, many entities nowadays are focusing not only on financial results but also on ecological and social impacts (Ruzzier *et al.*, 2015).

### *2.3 Electronic word-of-mouth as a source for tourism brand research*

This is the digital age and its technological advances have forced the tourism industry to transform their organizations and brands (Law *et al.*, 2014; Navio-Marco *et al.*, 2018). The web 2.0, covered by the popularity of interactive platforms, is one of the most influential factors in tourism (Sahin *et al.*, 2017).

The Virtual Travel Community (VTC) emerged on the web 2.0 and has been making it easier for travelers to obtain information about tourism suppliers and become less dependent on intermediaries (Buhalis and Law, 2008). This is part of the information and communication technology (ICT) evolution which has caused an increase in this independent traveler, being described as a person who “spurns the services of their local agent in favor of a do-it-yourself approach to holiday arrangements” (Jeacle and Carter, 2011, p. 294).

There are many platforms with 24/7 open access to the entire world which contribute to this purpose where tourists can share audiovisual content and positive, neutral or negative comments about tourism products which have been experienced (Sahin *et al.*, 2017). Websites like TripAdvisor are part of the VTC and an important source for eWOM information (Jeacle and Carter, 2011).

Marketing studies point to the strength of World-of-Mouth (WOM) as possessing greater effectiveness than traditional advertising (Kotler and Kotler, 2013) due to behaving as a risk reducer, but its level may vary across service categories (Sweeney *et al.*, 2014). For Duffy (2015), the credibility of WOM is based on homophily and eWOM is a combination of homophily and technology. According to Hennig-Thurau *et al.* (2004, p. 39), there is already a recognized definition for the term eWOM, meaning:

[...] any positive or negative statement made by potential, actual or former customers about a product or company, which is made available to a multitude of people or institutions via the Internet.

Some researchers show that eWOM spreads faster and reaches more people when compared to WOM (Buhalis and Law, 2008). However, Law *et al.* (2014) argue that managing eWOM is not that simple due to the proliferation of social media platforms and the democratization of opinions.

It is known that the need for information about tourism products is higher due to its intangible nature (O'Connor, 2008), and nowadays the decision-making process for choosing a hotel is mostly based on these statements published by previous guests on such platforms (Ekiz *et al.*, 2012). For this reason, hospitality businesses need to create their virtual brand identity and keep in touch with their consumers in online environments (Barreda and Bilgihan, 2013). And yet, attaching personality to brands can make consumers recommend the brand, spread positive WOM and encourage other consumers to buy it (Ismail and Spinelli, 2012).

### 3. Methodology

It has been more than 20 years since Aaker (1997) developed the BPS. At that time the internet was still poorly accessible and social networks did not exist yet, so she needed to send questionnaires by mail to respondents for data collection. Inspired by her initiative, but supported by modern technology features, an advanced way of investigating BP has been applied by the authors. This study follows the recommendation of Barreda and Bilgihan (2013), who indicate that hoteliers should use online consumer feedback as a source to help create a strong online brand. Buhalis and Law (2008) also state that VTC could be an assistant to strengthen brand association.

According to Paschen *et al.* (2017), BP studies have been adapted through the use of new research techniques other than questionnaires. Previous studies have already started to apply content analysis in searching for BP traits on the web (Opoku *et al.*, 2006; Pitt *et al.*, 2007), and later using computerized tools such as data mining techniques to do so (Dickinger and Lalicic, 2016; Opoku *et al.*, 2006; Paschen *et al.*, 2017; Chiang and Yang, 2018). They served as inspiration for the methodological planning adopted for the current study which now includes sustainability as a new dimension and performs an analysis in the digital environment. This is an exploratory study implementing a predominantly qualitative approach and uses digital content analysis to achieve its purpose.

Regarding discovering the existing BP traits (including Sustainability) on social network reviews, a digital map of hotel brand personality (HBP) has been developed through measuring the presence of related personality traits for hotel brands through eWOM collected on the TripAdvisor website. The reason for choosing these reviews is because it is a channel for expressing the brand experience that consumers have had with the hotels and the BP is capable of being formed via consumer brand experience (Chiang and Yang, 2018).

One hotel brand was selected as a source to verify the personalities perceived in it. The criterion used was the choice of the world's most valuable hotel brand according to Brand Finance (2018), and its officially declared commitment to the United Nation's 2030 sustainable development agenda. There are three hotel properties behind this brand, but distinguished locations were selected. They are from feature tourism destinations (London, New York and Sydney), and the reason is an extra investigation into if regional differences interfere in guest reviews and consequently on the BP trait scopes. The choice of these units was also due to the relatively close number of reviews.

#### 3.1 Dimensionality formation

The amount of personality traits was established and distributed across six categories (sincerity, excitement, competence, sophistication, ruggedness and sustainability) before starting the mining process. Five of the traits are from Aaker's scale and a new dimension entitled Sustainability was integrated. The criteria adopted for selecting and distributing these traits by dimensions occurred as follows:

*Sincerity, excitement, competence, sophistication and ruggedness:* Aaker's (1997) BPS served as the main instrument to support this research; however, some adaptations were made. By not being limited to the 42 traits developed by her and presented in Table 1, an extension of synonyms or associated words proposed by Opoku *et al.* (2006) and available on the internet (Provalis Research, 2019) was also considered as a complementary source to enrich the data collection instrument with a total of 833 variants which were evenly distributed across these five dimensions.

*Sustainability:* Another procedure was required to design a brief inventory of personality traits for the new proposed Sustainability dimension, and therefore an online free-

**Table 1.**  
Digital map of hotel  
brand personality  
traits identified on  
TripAdvisor reviews

Dimension	Total number of traits	Frequency of identified traits by hotel				% captured/useful traits
		HOTEL A (London)	HOTEL B (NYC)	HOTEL C (Sydney)	Total	
Sincerity	174	4.613	6.708	4.319	15.640	60.92
Excitement	142	1.483	2.336	2.084	5.903	64.08
Sophistication	173	1.096	1.868	1.791	4.755	49.71
Competence	168	1.024	1.72	1.106	3.850	51.19
Sustainability	213	1.187	1.433	1.132	3.752	50.23
Ruggedness	174	839	818	683	2.340	41.95
<i>Total number of reviews</i>						
(TripAdvisor)		4.814	6.627	4.734	16.175	–
First review		10/3/2013	7/23/2002	7/22/2015	–	–
Latest review		1/10/2019	1/9/2019	1/10/2019	–	–

association task was conducted. Respondents ( $n = 110$ , female = 65) from different countries (mostly United States = 83%) supported by the Amazon Mechanical Turk (MTurk.com) participated in a study on the types of personality traits associated with the 17 SDGs. The questionnaires were distributed online and the respondents were asked to inform the personality trait which came to their mind when thinking about people who practice the actions included in the brochure of 170 Daily Actions to Transform our World (United Nations, 2019), which proposes ten actions for achieving each of the 17 goals (No poverty; Zero hunger; Good Wealth and Well-being; Quality Education; Gender Equality; Clean Water and Sanitation; Affordable and Clean Energy; Decent Work and Economic Growth; Industry, Innovation and Infrastructure; Reduced Inequalities; Sustainable Cities and Communities; Responsible Consumption and Production; Climate Action; Life Below Water; Life on Land; Peace, Justice and Strong Institutions; and Partnerships for the Goals).

Next, 416 non-repeated personality traits were collected from the MTurk.com Survey in total. This list was reduced to a more manageable number so as not to form a large discrepancy with the traits which compose the other five proposed dimensions in the first stage. The authors also removed some traits which were already part of the other dimensions and those which were considered inadequate for representing this dimension. Only terminologies and their similar terms which corresponded to the attributes with sustainability's triple bottom line characteristics were considered, thus including compassion, security, humanitarian, sensitivity, environmentalist, generosity, helpfulness and sociability as some of the personality attributes related to the social and ecological triple bottom line pillars and previously proposed by other academics (Acharya and Gupta, 2016; Collao and Silva, 2014; Gordillo and Añaños, 2017). Beyond these items, terms with financial characteristics such as Economic, Fundraiser and Investor were also considered to support the third pillar of the Triple Bottom Line. Finally, 213 personality traits were considered in total.

### 3.2 Data mining procedure

It was necessary to gather the personality traits selected in the previous stage and to perform digital tracking for the frequency of these traits in the eWOM contained on TripAdvisor. A Web scraping procedure was conducted using the Selenium software package. The relevant content was the amount of BP traits selected in item 3.1, which were captured by using a Python 2.7 script built around the "Beautifulsoup" library. This research tool has already been used in studies by Akhtar *et al.* (2017), and a sample of 16,175 consumer reviews from the years 2002 to 2019 were used for this current investigation.



This mining process counts on the support of the TripAdvisor website, which is one of the largest online review sites (Lee *et al.*, 2016) and the most well-known user-generated content for the travel sector (Barreda and Bilgihan, 2013; Duffy, 2015). This social network contains reviews and comments about destinations, attractions and tourist services used by travelers. It is an important source of eWOM in the tourism segment (Jeacle and Carter, 2011). The software was adopted thereafter to count the frequency of these 1,046 personality traits in each consumer review. Based on this inventory of personality traits, the software ran through each specific review and counted the frequency of these representative key words.

#### 4. Results

In the first mining performance, it was carefully observed by the authors that some features would not be compatible for the investigation. The reason is that they had the function of adverbs in many instances, which would not be suitable to describe a personality trait. In addition, it was noticed that the same words became outliers. Cases like “good” and “excellent” boosted the results, and they were disregarded after the first tests.

Another necessary adaptation was on the evaluation of the word “new”. It was noted that this word became an outlier in evaluating the reviews in New York City. For that reason, the word “New York” contained in the comments was replaced by “NYC”, so as to not affect the frequency analysis of this term. As shown in Table 1, the performance of the selected traits was presented according to the total of occurrences representing each dimension obtained through the data mining.

The analysis by data mining observed representativity between the dimensions and also between the sample hotels. The sincerity and excitement dimensions obtained the best results, occupying the first and second position for all three evaluated hotels. These results are also in conformity with the study of Su and Reynolds (2017, p. 10), who stated “customers primarily try to express themselves in their hotel brand choice through the Excitement and Sincerity dimensions”. Therefore, the most representative features are presented in each of the six dimensions proposed in this study (Table 2). Traits such as “Friendly” and “Helpful” were prominent and boosted the performance of the sincerity dimension.

The achievement of each dimension presented in the reviews proposed by eWOM generated the understanding demonstrated on Table 3.

Despite the difference in the volume of traits presented in each hotel, there is a certain similarity in the format of the element distribution between the dimensions shown though a radar chart in Figure 1. This is a positive sign of correlative brand image between hotel unities spread around distinctive continents and complies with the statement of Dev (2012), which states “even a powerful brand will have trouble sustaining growth with a different image in every country” (p. 14) (Figure 3).

Based on this distribution, it was realized that all three hotels behind the brand performed relatively similar and that the sustainability dimension was only below its fourth position in the NYC hotel rating. One possible reason why this one might perform slightly lower in this location is that this is a hotel where TripAdvisor reviews cover a longer period and involve older content. This is more evidence that the sustainability issue is something which has become more valued by consumers more recently and will probably continue to keep growing.

#### 5. Conclusions and implications

This study expects to help hotel managers to become more aware about sustainable changes and incorporate this issue into their brand personalities inspired by the 17 SDGs. It is not just about investing in corporate social responsibility and the certifications, but going

Dimension	Trait	Freq.	(%)
Sincerity	Friendly	3352	21.43
	Helpful	3025	19.34
	Standard	1023	6.54
	Pleasant	767	4.90
	Open	572	3.66
	Decent	476	3.04
	Kind	438	2.80
	Polite	417	2.67
	Warm	414	2.65
	Welcoming	413	2.64
Excitement	Modern	1165	19.74
	Early	1039	17.60
	New	955	16.18
	Fresh	449	7.61
	Awesome	417	7.06
	Recent	196	3.32
	Young	196	3.32
	Cool	195	3.30
	Crazy	112	1.90
	Moving	102	1.73
Sophistication	Expensive	941	19.79
	Pretty	707	14.87
	Beautiful	680	14.30
	Fabulous	350	7.36
	Lady	294	6.18
	Spectacular	245	5.15
	Luxurious	142	2.99
	Top notch	138	2.90
	Stunning	131	2.75
	First class	101	2.12
Competence	Able	819	21.27
	Safe	420	10.91
	Outstanding	346	8.99
	Experienced	253	6.57
	In front	170	4.42
	Superior	164	4.26
	Complete	153	3.97
	Secure	105	2.73
	Trade	100	2.60
	Knowledgeable	94	2.44
Sustainability	Lovely	1060	28.25
	Care	487	12.98
	Fairly	236	6.29
	Giving	177	4.72
	Fair	146	3.89
	Hospitality	145	3.86
	Aware	127	3.38
	Share	106	2.83
	Woke	82	2.19
	Peaceful	80	2.13

**Table 2.**  
Most representative  
traits by dimension

(continued)



Table 2.

Dimension	Trait	Freq.	(%)
Ruggedness	Outside	766	32.74
	Hard	561	23.97
	Difficult	224	9.57
	Uncomfortable	202	8.63
	Unpleasant	59	2.52
	Tough	39	1.67
	Rough	31	1.32
	Extreme	30	1.28
	Struggle	28	1.20
Challenge	27	1.15	

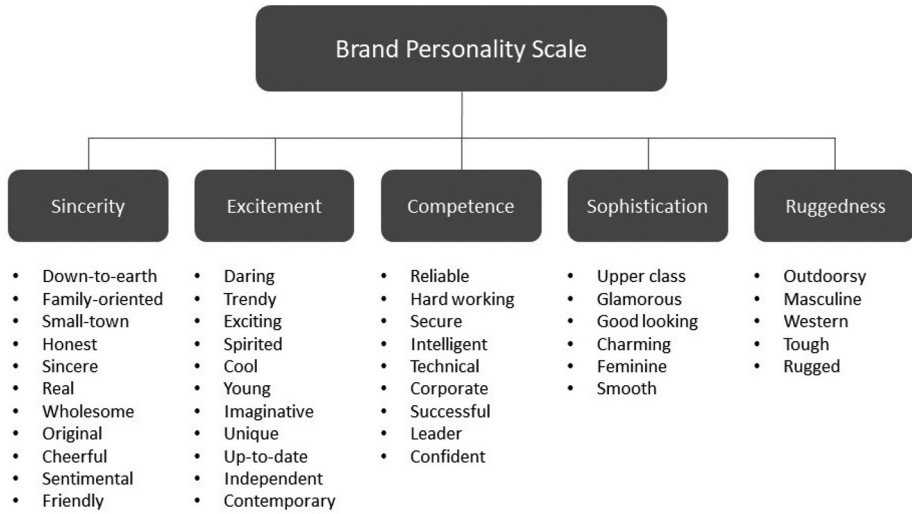
Sincerity	Most representative dimension. This dimension still counted on elements which boosted its results. "Friendly" was the most representative trait overall and a genuine feature of <a href="#">Aaker's (1997)</a> scale
Excitement	The second most expressive dimension. Although this dimension contained the smallest number of traits available for evaluation, it is proportionally the dimension with the best performance in the variation of personality traits identified in the reviews
Sophistication	Third overall position. It was a dimension which stood out along with competence in the study by <a href="#">Lee and Back (2010)</a> in investigating upper-upscale business hotels. However, in the study by <a href="#">Li et al. (2014)</a> which focused on economy hotels, this no longer presented the same performance
Competence	Ranked fourth overall. Perhaps it was the most unexpected position as the competence dimension was positioned as the most representative in studies by <a href="#">Lee and Back (2010)</a> and <a href="#">Li et al. (2014)</a> . However, its position does not mean poor performance, as the numbers are relatively close to the sustainability and sophistication dimensions
Sustainability	Fifth position. It was only in fifth position below the Competence dimension in the NYC hotel. The performance is considered satisfactory, and even more so when the sustainability theme is still in the adaptation process from the perspective of brand personality literature, but it is already well represented together with <a href="#">Aaker's (1997)</a> five well-known dimensions
Ruggedness	The lowest performance. This dimension was considered inadequate by some academics when applied to hotel brands. This reinforces the claim that the attributes belonging to ruggedness are not indicated to represent the personality of a hotel brand

Table 3.  
Dimension  
performance through  
eWOM

beyond and having sustainability as a brand purpose, deeply inserted in its personality to generate a positive impact on society and the planet.

Linking sustainability to BP is a promising route for branding strategies in hotel management and goes further than profit, growth and employment agendas. This investigation comes just at a time when the overtourism phenomenon faces resistance from many communities and environmentalists ([Tang and Lam, 2017](#)), and this is an invitation to reconstruct the predatory image linked to hotel brands and help them to be peacemaking and transformational agents for common welfare among tourists and residents.

The positive aspects of tourism as a facilitator of education, cross-cultural engagement, ecological appreciation and spiritual development ([Higgins-Desbiolles, 2018](#)) must be used for boosting sustainability practices through hospitality services. In other words, forming



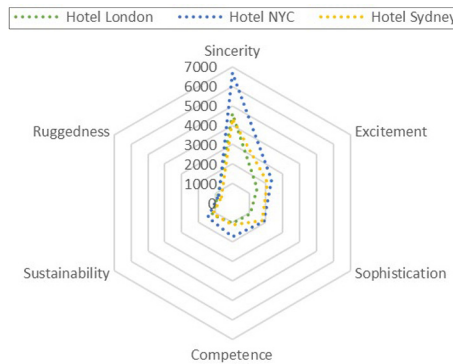
**Figure 1.**  
Brand personality scale – the 5 dimensions and their 42 traits

Source: Aaker (1997)



**Figure 2.**  
BPS adaptation for green brand personality

Source: Acharya and Gupta (2016)



**Figure 3.**  
Dimension representativeness in a radar chart by hotel

Source: Research data

hotel brands with a personality oriented towards sustainability is performed not only to better connect with conscious tourists who are looking for guilt-free consumption opportunities but also to become a leader in proactively and encouraging tourists, staff and a whole surrounding society to be aware of sustainability issues.

The authors recommend reverting the BP attributes into managerial and practical implications for promoting a more intense recognition of these personalities. For example, it could be a requirement for staff recruitment based on personality similarity, for developing the mission statement, property design, guest experience, or in creating a narrative discourse for communication or relational content with consumers (chatbots, Web pages, storytelling videos, voice assistants, consumer experience, fidelity programs), and many other ways.

As an academic contribution, this study is expected to help fill this lack of studies on BP in hospitality. In addition, proposing the inclusion of sustainability as a new dimension when investigating hotel BP, as the current study has identified that it is an element with significant representativeness for the sector.

## 6. Limitations and future research

This study was considered a first step in linking the sustainability theme to the BPS for hotels. Although it has explored broad content in a virtual scenario, the authors affirm that there is still a need for further research which strengthens and sustains this assertion that sustainability is a necessary attribute to be inserted in scales to measure the personality of hotel brands.

Thus, complementary studies are suggested for future research. Although sustainability is indicated to be somehow embedded in the personality scale of hotel brands, new online or offline surveys supported by a factorial analysis are recommended to check the consistency and to gain better support for this new proposed scale. As already commented by Duffy (2015), eWOM is accessible and analyzable, but it may not fully represent guest opinions.

The authors also recommend excluding the Ruggedness dimension of the BPS when applying it to hotel brands, as some of the most relevant traits could be considered and inserted into other dimensions when compatible. And finally, more hotel brands, new destinations or different accommodation market segments could be considered for future studies.

## References

- Aaker, D. (2015), *On Branding: 20 Principios Que Decidem o Sucesso Das Marcas*, Bookman, Porto Alegre.
- Aaker, J. (1997), "Dimensions of brand personality", *Journal of Marketing Research*, Vol. 34 No. 3, pp. 347-356, doi: [10.1177/002224379703400304](https://doi.org/10.1177/002224379703400304).
- Acharya, A. and Gupta, M. (2016), "An application of brand personality to green consumers: a thematic analysis", *The Qualitative Report*, Vol. 21 No. 8, pp. 1531-1545, available at: <https://nsuworks.nova.edu/tqr/vol21/iss8/14>
- Akhhtar, N., Zubair, N., Kumar, A. and Ahmad, T. (2017), "Aspect based sentiment oriented summarization of hotel reviews", *Procedia Computer Science*, Vol. 115, pp. 563-571, doi: [10.1016/j.procs.2017.09.115](https://doi.org/10.1016/j.procs.2017.09.115).
- Amatulli, C., Angelis, M., Costabile, M. and Guido, G. (2017), *Sustainable Luxury Brands: evidence from Research and Implications for Managers*, Palgrave Advances in Luxury, London, doi: [10.1057/978-1-137-60159-9](https://doi.org/10.1057/978-1-137-60159-9).
- Asmelash, A.G. and Kumar, S. (2019), "Assessing progress of tourism sustainability: developing and validating sustainability indicators", *Tourism Management*, Vol. 71, pp. 67-83, doi: [10.1016/j.tourman.2018.09.020](https://doi.org/10.1016/j.tourman.2018.09.020).
- Azoulay, A. and Kapferer, J. (2003), "Do brand personality scales really measure brand personality?", *Journal of Brand Management*, Vol. 11 No. 2, pp. 143-155, doi: [10.1057/palgrave.bm.2540162](https://doi.org/10.1057/palgrave.bm.2540162).

- Barreda, A. and Bilgihan, A. (2013), "An analysis of user-generated content for hotel experiences", *Journal of Hospitality and Tourism Technology*, Vol. 4 No. 3, pp. 263-280, doi: [10.1108/JHTT-01-2013-0001](https://doi.org/10.1108/JHTT-01-2013-0001).
- Brand Finance (2018), "Brand finance hotels 50 2018: the annual report on the world's most valuable hotel brands", available at: [https://brandfinance.com/images/upload/brand\\_finance\\_hotel\\_50\\_report\\_locked.pdf](https://brandfinance.com/images/upload/brand_finance_hotel_50_report_locked.pdf) (accessed 03 January 2019).
- Buhalis, D. and Law, R. (2008), "Progress in information technology and tourism management: 20 years on and 10 years after the internet – the state of eTourism research", *Tourism Management*, Vol. 29 No. 4, pp. 609-623, doi: [10.1016/j.tourman.2008.01.005](https://doi.org/10.1016/j.tourman.2008.01.005).
- Casidy, R., Wymer, W. and ÓCass, A. (2018), "Enhancing hotel brand performance through fostering brand relationship orientation in the minds of consumers", *Tourism Management*, Vol. 66, pp. 72-84, doi: [10.1016/j.tourman.2017.11.008](https://doi.org/10.1016/j.tourman.2017.11.008).
- Chiang, L. and Yang, C. (2018), "Does country-of-origin brand personality generate retail customer lifetime value? A big data analytics approach", *Technological Forecasting and Social Change*, Vol. 130, pp. 177-187, doi: [10.1016/j.techfore.2017.06.034](https://doi.org/10.1016/j.techfore.2017.06.034).
- Collao, C. and Silva, E. (2014), "The brand personality of non-profit organizations: measurement and analysis of the brand personality of the international NPOs in Peru", Doctoral thesis, Autonomous University of Barcelona, Spain.
- Dev, C. (2012), *Hospitality Branding*, Cornell University Press, New York, NY.
- Dickinger, A. and Lalicic, L. (2016), "An analysis of destination brand personality and emotions: a comparison study", *Information Technology and Tourism*, Vol. 15 No. 4, pp. 317-340, doi: [10.1007/s40558-015-0044-x](https://doi.org/10.1007/s40558-015-0044-x).
- Duffy, A. (2015), "Friends and fellows travelers: comparative influence of review sites and friends on hotel choice", *Journal of Hospitality and Tourism Technology*, Vol. 6 No. 2, pp. 127-144, doi: [10.1108/JHTT-05-2014-0015](https://doi.org/10.1108/JHTT-05-2014-0015).
- Ekiz, E., Khoo-Lattimore, C. and Memarzadeh, F. (2012), "Air the anger: investigating online complaints on luxury hotels", *Journal of Hospitality and Tourism Technology*, Vol. 3 No. 2, pp. 96-106, doi: [10.1108/17579881211248817](https://doi.org/10.1108/17579881211248817).
- Gimenez, C., Sierra, V. and Rodon, J. (2012), "Sustainable operations: their impact on the triple bottom line", *International Journal of Production Economics*, Vol. 140 No. 1, pp. 149-159, doi: [10.1016/j.ijpe.2012.01.035](https://doi.org/10.1016/j.ijpe.2012.01.035).
- Gordillo, J. and Añaños, E. (2017), "Socially responsible brand personality", Doctoral thesis, Autonomous University of Barcelona, Spain.
- Hennig-Thurau, T., Gwinner, K.P., Walsh, G. and Gremler, D.D. (2004), "Electronic world-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet?", *Journal of Interactive Marketing*, Vol. 18 No. 1, pp. 38-52, doi: [10.1002/dir.10073](https://doi.org/10.1002/dir.10073).
- Higgins-Desbiolles, F. (2018), "Sustainable tourism: sustaining tourism or something more?", *Tourism Management Perspectives*, Vol. 25, pp. 157-160, doi: [10.1016/j.tmp.2017.11.017](https://doi.org/10.1016/j.tmp.2017.11.017).
- Ismail, A.R. and Spinelli, G. (2012), "Effects of brand love, personality and image on word of mouth: the case of fashion brands among young consumers", *Journal of Fashion Marketing and Management: An International Journal*, Vol. 16 No. 4, pp. 386-398, doi: [10.1108/13612021211265791](https://doi.org/10.1108/13612021211265791).
- Jeacle, I. and Carter, C. (2011), "In TripAdvisor we trust: rankings, calculative regimes and abstract systems", *Accounting Organizations and Society*, Vol. 36 Nos 4/5, pp. 293-309, doi: [10.1016/j.aos.2011.04.002](https://doi.org/10.1016/j.aos.2011.04.002).
- Keller, K.L. and Lehmann, D.R. (2006), "Brands and branding: research findings and future priorities", *Marketing Science*, Vol. 25 No. 6, pp. 740-759, doi: [10.1287/mksc.1050.0153](https://doi.org/10.1287/mksc.1050.0153).
- Kim, K., Uysal, M. and Sirgy, M.J. (2013), "How does tourism in a community impact the quality of life of community residents?", *Tourism Management*, Vol. 36, pp. 527-540, doi: [10.1016/j.tourman.2012.09.005](https://doi.org/10.1016/j.tourman.2012.09.005).
- Kotler, P., Kartajaya, H. and Setiawan, I. (2017), *Marketing 4.0*, Sextante, Rio de Janeiro.

- Kotler, P. and Kotler, M. (2013), *Marketing de Crescimento: estratégias Para Conquistar Mercados*, Elsevier, Rio de Janeiro.
- Kristanti, M. and Jokom, R. (2017), "The influence of eco-friendly attitudes on tourists' intention toward green hotels", *Balancing Development and Sustainability in Tourism Destinations*, Springer, Singapore, pp. 21-30, doi: [10.1007/978-981-10-1718-6\\_3](https://doi.org/10.1007/978-981-10-1718-6_3).
- Kumar, V. and Christodouloupoulou, A. (2014), "Sustainability and branding: an integrated perspective", *Industrial Marketing Management*, Vol. 43 No. 1, pp. 6-15, doi: [10.1016/j.indmarman.2013.06.008](https://doi.org/10.1016/j.indmarman.2013.06.008).
- Law, R., Buhalis, D. and Cobanoglu, C. (2014), "Progress in information and communication technologies in hospitality and tourism", *International Journal of Contemporary Hospitality Management*, Vol. 26 No. 5, pp. 727-750, doi: [10.1108/IJCHM-08-2013-0367](https://doi.org/10.1108/IJCHM-08-2013-0367).
- Lee, J. and Back, K. (2010), "Examining antecedents and consequences of brand personality in the upper-upscale business hotel segment", *Journal of Travel and Tourism Marketing*, Vol. 27 No. 2, pp. 132-145, doi: [10.1080/10548400903579688](https://doi.org/10.1080/10548400903579688).
- Lee, H., Jai, T. and Li, X. (2016), "Guest's perceptions of green hotel practices and management responses on TripAdvisor", *Journal of Hospitality and Tourism Technology*, Vol. 7 No. 2, pp. 182-199, doi: [10.1108/JHTT-10-2015-0038](https://doi.org/10.1108/JHTT-10-2015-0038).
- Li, X., Yen, C.L. and Uysal, M. (2014), "Differentiating with brand personality in economy hotel segment", *Journal of Vacation Marketing*, Vol. 20 No. 4, pp. 323-333, doi: [10.1177/1356766714527965](https://doi.org/10.1177/1356766714527965).
- Moscardo, G. (2015), "Tourism and sustainability: challenges, conflict and core knowledge", in Moscardo, G. and Benckendorff, P. (Eds), *Education for Sustainability in Tourism: A Handbook of Processes, Resources and Strategies*, Springer, Heidelberg, pp. 25-43, doi: [10.1007/978-3-662-47470-9\\_2](https://doi.org/10.1007/978-3-662-47470-9_2).
- Navío-Marco, J., Ruiz-Gómez, L.M. and Sevilla-Sevilla, C. (2018), "Progress in information technology and tourism management: 30 years on and 20 years after the internet – revisiting Buhalis and law's landmark study about eTourism", *Tourism Management*, Vol. 69, pp. 460-470, doi: [10.1016/j.tourman.2018.06.002](https://doi.org/10.1016/j.tourman.2018.06.002).
- O'Connor, P. (2008), "User-generated content and travel: a case study on tripadvisor.com", in O'Connor, P., Höpken, W. and Gretzel U. (Eds), *Information and Communication Technologies in Tourism 2008*, Springer, Vienna, doi: [10.1007/978-3-211-77280-5\\_5](https://doi.org/10.1007/978-3-211-77280-5_5).
- Opoku, R., Abratt, R. and Pitt, L. (2006), "Communicating brand personality: are the websites doing the talking for the top South African business schools", *Journal of Brand Management*, Vol. 14 No. 1-2, pp. 20-39, doi: [10.1057/palgrave.bm.2550052](https://doi.org/10.1057/palgrave.bm.2550052).
- Paiva Neto, A. and Ferreira, L. (2017), "Lodging brand personality", Master's thesis, Federal University of Rio Grande do Norte, Natal.
- Paschen, J., Pitt, L., Kietzmann, J., Dabirian, A. and Farshid, M. (2017), "The brand personalities of brand communities: an analysis of online communication", *Online Information Review*, Vol. 41 No. 7, pp. 1064-1075, doi: [10.1108/OIR-08-2016-0235](https://doi.org/10.1108/OIR-08-2016-0235).
- Pitt, L.F., Opoku, R., Hultman, M., Abratt, R. and Spyropoulou, S. (2007), "What I say about myself: communication of brand personality by African countries", *Tourism Management*, Vol. 28 No. 3, pp. 835-844, doi: [10.1016/j.tourman.2006.06.003](https://doi.org/10.1016/j.tourman.2006.06.003).
- Provalis Research (2019), "Brand personality dictionary", available at: <https://provalisresearch.com/products/content-analysis-software/wordstat-dictionary/brand-personality-dictionary/> (accessed 3 January 2019).
- Ruzzier, M.K., Petek, N. and Ruzzier, M. (2015), "Incorporating sustainability in branding: i feel Slovenia", *The IUP Journal of Brand Management*, Vol. 12 No. 1, pp. 7-21.
- Sahin, I., Gulmez, M. and Kitapci, O. (2017), "E-complaint tracking and online problem-solving strategies in hospitality management: plumbing the depths of reviews and responses on TripAdvisor", *Journal of Hospitality and Tourism Technology*, Vol. 8 No. 3, pp. 372-394, doi: [10.1108/JHTT-02-2017-0009](https://doi.org/10.1108/JHTT-02-2017-0009).
- Scopus (2019), "Website search scopus", available at: [www.scopus.com/home.uri](http://www.scopus.com/home.uri) (accessed 3 January 2020).

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- Stengel, J. (2013), *Cresça: como Ideais Potencializam Crescimento e Lucro Nas Maiores Companhias Do Mundo*, Alta Books, Rio de Janeiro.
- Su, N. and Reynolds, D. (2017), "Effects of brand personality dimensions on consumer's perceived self-image congruity with hotel brands", *International Journal of Hospitality Management*, Vol. 66, pp. 1-17, doi: [10.1016/j.ijhm.2017.06.006](https://doi.org/10.1016/j.ijhm.2017.06.006).
- Sweeney, J., Soutar, G. and Mazzarol, T. (2014), "Factors enhancing word-of-mouth influence: positive and negative service-related messages", *European Journal of Marketing*, Vol. 48 Nos 1/2, pp. 336-359, doi: [10.1108/EJM-06-2012-0336](https://doi.org/10.1108/EJM-06-2012-0336).
- Tang, C.M.F. and Lam, D. (2017), "The role of extraversion and agreeableness traits on gen Y's attitudes and willingness to pay for green hotels", *International Journal of Contemporary Hospitality Management*, Vol. 29 No. 1, pp. 607-623, doi: [10.1108/IJCHM-02-2016-0048](https://doi.org/10.1108/IJCHM-02-2016-0048).
- United Nations (2019), "170 actions to transform our world", available at: [www.un.org/sustainabledevelopment/student-resources/](http://www.un.org/sustainabledevelopment/student-resources/) (accessed 15 January 2019).
- WEF (2018), "Our shared digital future: building an inclusive, trustworthy and sustainable digital society", insight Report, available at: <https://www.weforum.org/reports/our-shared-digital-future-building-an-inclusive-trustworthy-and-sustainable-digital-society> (accessed 13 February 2019).

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