

# Personalities for sustainable brands: Derivations from personality traits of sustainable consumers

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**Personalities for sustainable brands:  
Derivations from personality traits of sustainable consumers**

Sustainable consumption constitutes a red-hot research field. An enormous amount of studies has examined sustainable consumer characteristics or preferences for sustainable product attributes. However, no study has focused on recommended personalities for sustainable brands. Brand personality verifiably impacts consumer (purchase) behavior, because consumers choose brands that coincide with their own personality.

We conduct an empirical study which contains a discrete choice experiment for jeans and a personality test. By using a two-step segmentation approach, we extract sustainable and less-sustainable consumers and explore their personality differences. Using well-known relationships between consumer and brand personalities, we subsequently derive suggestions for harmonic personalities for sustainable brands.

*Keywords: brand personality, discrete choice experiment, consumer personality*

*Track: Product and Brand Management*

## 1. Motivation

Currently, sustainable consumption constitutes a rapidly increasing trend. In Germany, for example, the sustainable segment 'LOHAS' (Lifestyle of Health and Sustainability) (e.g., Ray & Anderson 2000) comprises up to 50% of German consumers (Helmke et al 2016). Due to the enormous market potential of sustainable consumer segments and their still increasing growth rate (cp. Schüpbach et al. 2017, p. 28), sustainable consumers are highly relevant for marketing managers. Obviously, companies must satisfy the needs of sustainable consumers in order to stay competitive and gain ample revenues.

The targeting of sustainable consumers could be performed via company's marketing mix. For example, product enhancements with sustainable product attributes like a Fair Trade (FT) label attribute could be used within product design decisions. FT labels of the independent fair trade labelling organization (FLO) document that a product comprises to the FLO's standards, e.g., working conditions, fair compensation of commodities' manufacturers. Furthermore, advertising could explicitly point out the sustainability of a product. If the marketing mix is well-balanced, a brand of sustainable products will be able to create a matching and successful brand image.

It is well-known, that consumers' utility for a certain product evolves from both physical or functional attributes (e.g., price, display of a FT label) as well as from psychological attributes (e.g., brand personality). In several product categories, e.g. denim jeans, physical attributes between different brands become more and more equal in a progressing product life cycle, especially in the maturity stage. Hence, psychological product attributes gain more and more importance for brand's building of a utility surplus. The personality of a brand constitutes a popular aspect of psychological product components. It is well-known, that consumers use brands to express their own preferences or their membership to a certain (e.g. sustainable) consumer group. Malhotra (1988) worked out coincidences between a consumer's personality and her/his preferred brand personality. The more similar the brand personality to the personality of its targeted consumers, the more likely are consumers to purchase the brand. For sustainable brands, it is therefore advisable to explore the personality of sustainable consumers and to harmonize brand personality.

So far, no study has focused on recommendations on appropriate brand personalities for sustainable brands. Therefore, we pick up this research topic: We conduct an empirical study in Germany which contains both a discrete choice experiment (DCE) in the product category of denim jeans and a personality test. Using a two-step segmentation procedure, we

explore consumers' individual sustainability-preferences via Hierarchical Bayesian (HB) methods and build up sustainable and less-sustainable consumer classes via cluster analysis. Classes' profiling with personality variables and subsequent statistical analyses provide insights into significant personality differences between sustainable and less-sustainable consumers. Based on significant personality differences, we use well-known positive relationships between consumer personality and brand personality and provide suggestions for appropriate, e.g. harmonic, personalities for sustainable brands.

The remainder is as follows: In section 2 we lay the theoretical foundations. In section 3 we provide information on our empirical study and draw inferences on appropriate personality traits for sustainable brands. Conclusions and future research issues are given in section 4.

## **2. Methodology**

Here, we firstly review a specific HB model for the determination of individual consumer preferences in the context of DCEs and discuss two-step segmentation approaches of individual preferences into cluster-specific preferences briefly in 2.1. Then, we briefly introduce the popular five-factor model of (consumer) personality and the construct of Aaker's (1997) brand personality of in 2.2. In 2.3 we review relationships between consumer personality traits and preferred brand personality traits from relevant literature.

### ***2.1 A 2-step segmentation model in the context of DCE***

To discover sustainable consumers, it is necessary to determine consumers' preferences for sustainable product attributes. For this purpose, we use a DCE. In DCE alternatives are recognized as a bundle of pre-specified attributes with varying attribute levels.

Within our 2-step segmentation approach, we firstly employ a HB – Multinomial Logit (MNL) model to determine individual preferences for each attribute level. The HB-MNL model is rooted in random utility theory and allows to account for preference heterogeneity on an individual level. The random utility of alternative  $i$  for an individual  $j$  is

$$U_{ji} = \alpha_j \cdot p_i + x_i \cdot \beta_j + \varepsilon_j,$$

where  $\varepsilon_j$  is a random error term, which is assumed to be Gumbel distributed and  $p_i$  denotes the price of alternative  $i$ .  $\alpha_j$  is a linear price parameter and  $\beta_j$  is a part-worth utility vector that contains individual  $j$ 's utilities of the non-price attributes (levels). We assume individuals to behave utility maximizing, e.g. an individual chooses that alternative, which provides the

biggest utility to her/him in a certain choice occasion. The HB-MNL model estimates individual parameter vectors  $\theta'_j = [\alpha_j, \beta_j]'$ ,  $j=1, \dots, J$ , based on respondents' choice data. Within the second step of our 2-step segmentation approach, we use the individual part-worth utility parameters for the sustainable product attribute (here: FT label) as input for a cluster analysis and search for two classes (sustainable vs. less/non-sustainable).<sup>1</sup> We assume, that an increasing preference for the FT label attribute corresponds to an increasing preference for sustainability that characterizes sustainable consumers.

## ***2.2. Consumer personality and brand personality: Operationalization and relationships***

We follow the definition of McCrae and Costa (1996) as well as of McCrae and Costa (2008, p. 165) and view a human's personality as a description of him/her in terms of thoughts, feelings and behavior. Following the popular five-factor theory, a human's personality is formed by five distinct personality traits: extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness. Extravert personalities have social skills and are described by facets such as warmth and assertiveness. Neurotic persons are anxious, tend to suffer from depression and have pessimistic attitudes. Open personalities are interested in travel and tend to prefer fantasy. Agreeable personalities believe in cooperation and exhibit altruistic behavior, while conscientious personalities are dutiful and show leadership skills (cp. McCrae & Costa 1996, p. 67; McCrae & Costa 2008, p. 164). To determine the personality of a human, several personality tests exist. These tests primarily rely on rating scales, where respondents evaluate themselves with regard to different facets. Commonly, the results of different facets are aggregated to achieve the result of the associated factor. For example, to assess a consumer's extraversion, the results of the consumer's self-assessment of facets such as warmth, gregariousness and assertiveness are aggregated.

In order to use a construct to describe brand personality that matches the five-factor model of consumer personality, we follow the popular approach of Aaker (1997). Aaker (1997) defined a brand's personality as the 'set of human characteristics associated with a brand' (Aaker 1997, p. 347). To categorize brand personality, Aaker (1997) used a North American sample and identified five independent traits that constitute a brand's personality,

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<sup>1</sup> Theoretical information on the HB-MNL model and its estimation procedure as well as on the theory of cluster analytic approaches are out of scope of this paper and could be found elsewhere, e.g., view Train (2001) for the HB-MNL model and Hair et al. (2014) for information on cluster analytic approaches.

i.e., competence, excitement, ruggedness, sincerity and sophistication. In accordance with the description of consumer personality traits within the five-factor model, distinguishing facets help us to describe the five brand personality factors. While competence is, for example, characterized by efficiency, excitement refers to imaginativeness. Ruggedness is linked to outdoorsiness, sincerity to domesticity and sophistication to pomposity (Aaker 1997, p. 351). Criticism of Aaker' approach with regard to lacking cross-cultural stability, which means that the five factors are not always replicable across various cultures, has been reported (e.g., Azoulay & Kapferer, 2003). In the German context, to the best of our knowledge, three different brand personality scales of Hieronimus (2003), Mäder (2005) and Bosnjak et al. (2007) have been made available so far, which differ in both the number and declaration of brand personality traits. Obviously, even for a fixed cultural context, a comprehensive scale that measures brand personality does not exist. In the following, we rely on the brand personality scale of Aaker (1997) in order to edit our German sample, because Gil and Hellgren (2011) verified the (initial North-American) scale of Aaker (1997) for a German sample.

Within her seminal study, Aaker (1997) analyzed relationships between brand personality and consumer personality (measured by the five-factor model), and several studies maintained and expounded on the seminal findings (e.g., Lin, 2010 and Mulyanegara et al., 2009). For example, Aaker (1997) identified relationships among sincerity and agreeableness and consciousness as well as relationships among excitement and openness and extraversion and a relationship between competence and consciousness. Lin (2010) found relationships among excitement and extraversion and agreeableness as well as among sincerity and competence and agreeableness.

### **3. Empirical study**

Here, we firstly provide information on the empirical data in 3.1. Then, we report the results of our empirical study and discuss recommendations on appropriate brand personality traits for sustainable brands in 3.2.

#### ***3.1 Data***

We conducted an empirical study within the product category of jeans. We distributed our questionnaire via an online survey to a representative German sample. The respondents who stated that they buy jeans (our focal product) completed the questionnaire, which consisted of

three parts. The first part included socio-demographic questions, e.g., the respondents' gender and age. The second part contained a personality self-test, which was adopted from Saum-Aldehoff (2012), p. 190-198. In this test, each factor is calculated on the results for 10 facets. Each factor's value ranges between -20 and + 20. The third part yielded a choice task. The choice task consisted of 16 choice sets with a dual-response design. Hence, each respondent faced two questions for each choice occasion. First, each respondent had to choose his/her favorite jeans from four jeans alternatives. Second, each respondent was asked whether he/she would truly buy the previously selected jeans alternative in a current marketplace (cp. Diener et al. 2006, p. 157). The denim jeans alternatives were built up from the attributes brand (Diesel, G-Star, Levis, Replay), price (50€ 90€ 130€ 170€), design (traditional, trendy) and display of a FT label (no, yes). The (non-sustainable) attributes are chosen in accordance to DCEs in the denim jeans category in relevant literature. The associated attribute levels for the brand and price attribute contain top denim brands in Germany and cover their price ranges. The final sample included 353 respondents who closely represent the socio-demographic distribution in Germany: 50.4% were female. The mean age was approx. 43 years.

### ***3.2 Results and suggestions on sustainable brand personalities***

The HB estimation was performed with CBC/HB from Sawtooth Software assuming effects coding for all non-price attributes and a linear price parameter. Subsequently, we used the part-worth utility parameter of the FT label as input for a k-means cluster analysis, where we fixed the number of classes to two. We calculated the class-specific part-worth parameters and attribute importance for the sustainable product attribute resulting from the aggregation of the individual estimates of class-members. Class 1 contains 280 members with a part-worth utility of 0.266 (FT label: yes) and a relative importance of 12.99% for the sustainable product attribute. Class 2 consists of 73 members with a part-worth utility of 0.771 and a relative importance of 47.60% for the sustainable product attribute. Although both classes yield a positive sign for the FT label attribute, class 2 attaches a significantly higher importance to the sustainable FT label attribute as displayed in Table 1. Hence, class 2 is built up of sustainable consumers, while class 1 contains less-sustainable consumers. The personality-profiling results of both classes as well as the F- and associated p-values resulting from one-way ANOVA are given in Table 1.

	Class 1 (Less-Sustainable)	Class 2 (Sustainable)	F-value (p-value)
Rel. imp. FT label	12.99%	47.60%	498,501 (p=0,000)
Agreeableness	10.075	11.507	3,228 (p=0,073)
Openness	5.139	6.658	2,892 (p=0,090)
Consciousness	9.404	10.370	1,185 (p=0,277)
Neuroticism	-2.129	-2.849	1,109 (p=0,293)
Extraversion	3.032	3.658	0,505 (p=0,478)

**Table 1: Class-specific personality differences**

The sustainable class 2 is significantly more agreeable and open than the less-sustainable class 1. This characterization of sustainable consumers as agreeable and open is further supported by the factors' facets. As already stated in section 2.2, agreeableness corresponds to facets such as altruism, kindness and warm-heartedness. In particular, the facet 'altruism' obviously links to the FT context, where people are beneficiaries of social product enhancement (cp. FairTrade 2018). Openness corresponds to facets such as intellectualism, emotionality, and liberalism (McCrae & John, 1992, p. 178-179), which are obviously relevant in the FT context too.

Recent literature has identified a relationship between consumer personality and brand personality. It was found that a consumer's preference for a certain brand increases as the congruity between the consumer personality and brand personality increases (Aaker 1997, p. 347). Hence, companies that would like to enhance their products with a FT label may harmonize their brand personality with consumer personality to enhance the success of the product. Concerning our focal personality traits 'agreeableness' and 'openness', Aaker (1997) and Lin (2010) identified positive correlations between both the consumer personality trait 'openness' and the brand personality trait 'excitement' as well as between the consumer personality trait 'agreeableness' and the brand personality trait 'sincerity'. Hence, companies that offer brands/products with social product enhancements may focus on these brand personality traits to attract sustainable consumers.

A closer inspection indicates that the adjectives associated with the recommended brand personality traits directly correspond to the FT context: Excitement is described by attributes such as daring, spirited, imaginative and up-to-date (cp. Aaker 1997, p. 351), while sincerity

is described by the attributes honest, wholesome, cheerful and down-to-earth (cp. Aaker 1997, p. 352). The process of transferring these attributes to the FT context is straightforward: For example, a brand that offers a fairly traded product could inter alia be considered as an honest or up-to-date brand, because the FT context is associated with these attributes too (cp. Lübke 2007).

#### **4. Conclusion**

Currently, sustainable consumption constitutes a rapidly increasing trend in Germany (and worldwide). An enormous amount of research studies has examined the characteristics of sustainable consumers or explored their preferences for sustainable product attributes. However, a transfer to recommended/harmonic brand personalities for sustainable brands is missing. This is astonishing, because brand personality verifiably impacts consumer (purchase) behavior and it is well-known that consumers tend to choose brands that coincide with their own personality.

To explore suggestions for appropriate personalities for sustainable brands, we conduct an empirical study which contains a DCE of jeans and a personality test. By using a preference-based two-step segmentation approach, we extract sustainable and less-sustainable consumer classes and explore their personality differences. We found the sustainable consumer class to be significantly more agreeable and open than the less-sustainable consumer class. By using well-known relationships between consumer and brand personality traits, we derived, that sustainable brands should highlight the brand personality traits ‘sincerity’ or ‘excitement’ to attract (agreeable and open) sustainable consumers.

Thus far, no research has explored recommended brand personalities for sustainable brands from the personality traits of sustainable consumers. Hence, research in this field is needed to provide further insights into the relationship between sustainable brands and consumers’ perceptions. Furthermore, we used hypothetical parallels between consumer personality and brand personalities from literature. Although the relevant literature provides relatively stable results, an all-encompassing study would further contribute to a deeper understanding of the favorable personalities of sustainable brands.

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